

The Canadian Rose Annual 1985

George J. Pagowski
EDITOR



Published by
THE CANADIAN ROSE SOCIETY
20 Portico Drive
Scarborough, Ontario M1G 3R3

The Canadian Rose Annual 1985

George J. Pagowski
EDITOR



Published by
THE CANADIAN ROSE SOCIETY
20 Portico Drive
Scarborough, Ontario M1G 3R3



Digitized by the Internet Archive
in 2014

From the Editor's Notebook

There seem to be two schools of thought regarding the time of writing a preface: one claims it should be done before assembly of the text is begun, which permits the editor to define his intentions; the other insists that it be the last job, when he can explain what has been done. I chose the latter course, reasoning that at such time, it would be easier to see what should have been done.

Upon inspecting the list of contents, the reader will notice that this edition of the CRS Annual is composed of the Clearing House and the Lecture Programme of **ROSECAPADES '85**. Omitted are descriptions of such events as the Opening Ceremonies, Rose Show and Tours, some of which were reported in *The Rosarian* or in newsletters published by various affiliated societies. Also missing is an account of the Demonstrations of Rose Arrangements (part of the lecture programme), reports of resolutions reached at W.F.R.S. business meetings and the CRS Annual Report, which were not received.

Our President had promised, at some point, that the Annual would be in member's hands in 1985. Alas, the job took longer than expected! Please bear in mind, dear readers, that all work, except the actual printing, was done in the "spare-time" of those involved in this production, including the type-setting, as a cost-saving effort. It may be of interest to some, to summarize here the process by which final copy was reached: the lectures were tape-recorded at the time of presentation. (In only two or three cases did speakers hand-in their prepared texts.) The tape-recordings were transcribed - a monumental task - the transcriptions were then edited by several CRS board members who had attended or chaired the appropriate sessions. (Here it was discovered that in some cases, the tape ran out before the speaker!) Corrections were made. It was also realized that certain rose names, which sounded authentic when spoken, were in fact inaccurate. Verification of such names required a number of long-distance 'phone calls. After more red pencil work, a final draft was typeset. Following proof-reading of the text, came the job of cutting and pasting of the copy, before delivery to the printer.

Readers may find certain presentations somewhat colloquial in their delivery: the editorial committee felt that much desirable flavour would be lost, if those passages were rewritten; also note that most speakers relied heavily on colour slides for interpretation of points made. The editor tried to content himself with making certain that, at least, the nomenclature be correct! If the reader is aware of any inaccuracy, I should be glad to hear

about it, so that a correction may be published. In the meantime, I ask your forgiveness for any oversight.

The following are to be commended for their efforts: Mrs. Ethel Freeman for organization and transcription of tape-recordings, co-ordination of efforts and general worries; Mrs. Anne Graber, Judge Milton Cadsby, Messrs James Anderson and Paul Graber, CRS directors, for review of transcriptions; Messrs. Edward Stafford, George Patterson and Norman MacKay, Hamilton & Burlington Rose Society, for proof-reading of copy; Mrs. Nellie MacDougall, RBG staff, typing and typesetting of the texts; and a particular thanks to Mr. Allen Paterson, Director, Royal Botanical Gardens, for his kind permission to use RBG equipment, so that this volume may be expedited.

We are indebted for the loan of colour separations of the Rose 'Esmeralda' to Hortico Inc., Waterdown, Ontario; for 'Double Delight' to Armstrong Roses Inc., California and 'Gold Mine' to Springwood Miniature Roses, Caledon East, Ontario.

ROSECAPADES '85 happened some six months ago - at the time of writing of these notes. It is a pity, that many CRS members were unable to attend this convention. From the comments of reporters/delegates, in various publications, one gets the impression that those who came enjoyed the gathering. And now, at last, the Annual is in your hands. May the contents rekindle fond memories, for those who came, and be a source of help or inspiration for those who could not participate in the Seventh Convention of the World Federation of Rose Societies.

George Pagowski

CONTENTS

Editor's Notebook.	3
Patrons, Officers and Directors of the Canadian Rose Society . . .	7
Presidents of the Canadian Rose Society	9
President's Message	11
International Rose Show.	12
 ROSECAPADES '85 Lecture Programme.	 13
Miniature Roses - Discussions by Rose Hybridizers	
Dawn and Barry Eagles, New Zealand	13
Ernie Williams, USA.	15
Frank Benardella, USA.	18
Harmon Saville, USA	20
Ralph Moore, USA	23
Sean McCann, Ireland.	26
 Hybridizing of Large Roses	
Eric Welch, Australia.	29
Barbara Maas, USA	30
Thomas McMillan, USA	32
Lynn Collicutt, Canada.	35
Hybridizer's Panel Discussion	
Chairman - Keith Laver, Canada	38
 Evaluation of Rose Cultivars	
Introduction of New Roses - Steve Hutton, USA.	49
Testing for All-America Winners - Fred Edmunds, USA.	51
Testing of New Varieties - Josef Sieber, Germany	54
 Exhibitions	
Demonstrations of Floral Decorations -	
Bernd Weigel, Germany	57
Rose Shows and Exhibitions in Poland -	
Jadwiga Grabczewska, Poland	59
 Public Rose Gardens	
Landscape Planning - Jacques Defever, Belgium.	60
A Visit to Bagatelle - Mando Bernard, France	61
The Role of the Roseraie de l'Hay in the History of the	
Rose - Daniel Jean, France	63
The Wohl Rose Garden - Amos Rosenthal, Israel	65
Roses in Japan - Kagio Nakano, Japan	66

Durbanville Garden for Miniature Roses - Ludwig Taschner, South Africa	67
Roses and People - Craig Wallace, N. Ireland	68
Winter-hardy Roses - Art Coles, Canada	70
Climbing Roses - Richard Balfour, England.	72
Roses in the Home Garden	
Vincent Gioia, USA	74
Charles Leon, USA	75
Dick Squires, England	77
Norman Beck, N. Ireland	79
Growing Roses in Manitoba - Betty Biddulph and Gordon Grindle, Canada	81
Shrub Roses - Ancient and Modern	
Planning your Garden for Beauty with Shrub Roses - Vickie Jackson, USA	84
Old Garden Roses in the Modern Garden - Charles Jeremias, USA	86
All the Teas in China - Clair Martin, USA	89
Old Garden Roses in Bermuda - Elizabeth Cooper and Peggy Nicoll, Bermuda	92
Old-fashioned Roses - Mike Lowe, USA	96
Modern Shrub Roses - Michael Gibson, England	98
Meidiland Roses for Green Architecture - David Gilad, Israel	101
Container Growing of Roses	
Ludwig Taschner -, South Africa	103
Tim Bucknell - Canada	105
Roses as Bonsai - Toru Onodera, Japan	108
Scientific Reports	
Micropropagation - Jack Christensen, USA	110
Natural Vitamin C in Rose Fruits - Jadwiga Grabczewska, Poland	114
Blooming Classes in Roses - Stefan Wagner, Rumania	115
Rose Name Registration - Vincent Gioia, USA	120
The Clearing House	
Audrey Brisbane and Rachel Flood.	122

THE CANADIAN ROSE SOCIETY

Chief Patron

Her Excellency, The Right Honourable Jeanne Sauve
P.C., C.C., C.M.M., C.D.
Governor General of Canada

Patron Principal

Son Excellence la tres honorable Jeanne Sauve,
C.P., C.C., C.M.M., C.D.
Gouverneur general du Canada

Patrons

Dr. & Mrs. J.H. Baillie
Mr. J.E. Bradshaw
Mrs. R.M. Brophy
Miss M.E. Dove
Mr. R.H. Keith
Mr. S. McGredy
Mr. R. Simonet
Mr. P. Wright

Honorary President

His Honour Judge M.A. Cadsby

Honorary Directors

Mrs. J.J. Gallagher	Mr. T. Mayer
Mr. R.S. Gomme	Mrs. A.L. Naismith
Mr. E.D. Goulding	Dr. I.L. Nonnecke
Lieut-Col. F.E. Goulding	Mr. W. Whytock
Prof. E. Jorgensen	Mrs. C.T. Wilson
Dr. L. Laking	

OFFICERS

Past President

Mr. T. Bucknell

President

Mrs. E. Freeman

Vice-Presidents

Mr. J. Anderson	Mrs. M. Baillie
Mr. W.J. Comper	

Treasurer

Mr. W.J. Comper, 64 Lingarde Drive, Scarborough, Ontario M1R 1X9

Executive Secretary

Mrs. B. Hunter, 20 Portico Drive, Scarborough, Ontario M1G 3R3

Board of Directors

Mr. J. Anderson

Mr. P. Graber

Mrs. J.H. Baillie

Mrs. B. Hunter

Mrs. M. Bebel

Mrs. S. Iwasisw

Mr. T.W. Brennand

Mr. C. Lamrock

Mrs. M. Cadsby

Mr. K. Laver

Mr. W.J. Comper

Mr. K. McFarquhar

Mrs. J. Cooper

Mrs. A. Meiklejohn

Mr. W. Dunn

Mr. G. Pagowski

Mrs. E. Fallis

Mr. G. Walker

Mrs. I. Finch

Mr. R. Whitlock

Regional Directors

Mrs. A.E. Ings, 22 Queen Road, P.O. Box 10, Montague, P.E.I. COR 1R0

Mr. L. Miller, Box 1194, Dalhousie, N.B. BOK 1B0

Mrs. W.S. Armstrong, R.R. 2, Granville Ferry, Annapolis Co., N.S. BOS 1K5

Mr. G. Draper, Halifax, N.S.

Mr. N. Batchelor, 330 Claude Ave., Dorval, P.Q. H9S 3B3

Mr. T. Mayer, 125 Merton Ave., St. Lambert, P.Q. J4P 2W1

Mrs. E. Ouellette, 19 Bras D'Or, Pte. Claire, P.Q. H9R 1W5

Dr. F.A. Rahmel, 555 Weller St., Peterborough, Ont. K9H 2N9

Mr. G. Blythe, 219 Dick St., Waterloo, Ont. N2L 1N3

Mrs. G. Caldwell, R.R. 1, Shanty Bay, Ont. LOL 2L0

Mr. D. Deeley, R.R. 4, Bowmanville, Ont. L1C 3K5

Mr. P. Fawcett, 838 Hortop St., Oshawa, Ont. L1G 4P1

Mr. E. Hillier, R.R. 5, Orangeville, Ont. L9W 2Z2

Mr. R.H. Keith, 44 Hewitt St., Orangeville, Ont. L9W 3R1

Mr. G.H. Magee, 1121 Homedale Blvd., Windsor, Ont. N8S 2T6

Mrs. Wm. McCann, 1 Queen St. North, Thorold, Ont. L2V 2P7

Mr. W.R. McGillivray, Box 283, R.R. 3, Manotick, Ont. KOA 2N0

Mr. R.G. Whitlock, 303/112 Baseline Rd. West, London, Ont. N6J 1V4

Mrs. H.A. Biddulph, Box 9, Group 322, R.R. 3, Winnipeg, Man. R3C 2E7

Mrs. F. Thorpe, 8 Oaklawn Place, S.W. Calgary, Alta. T2V 3Z1

Mr. E.N. Grant, 1257 West 49th Ave., Vancouver, B.C.

Mr. A.R.C. James, 3936 Braefoot Rd., Victoria, B.C. V8P 3T2

Mr. C.D. Yeomans, 6276 Dunbar St., Vancouver, B.C. V6N 1X4

PRESIDENTS
of
THE CANADIAN ROSE SOCIETY
 and its predecessor
THE ROSE SOCIETY OF ONTARIO

1913-15	Mrs. Allen Baines
1916-18	Mrs. G. Graeme Adam
1919-20	Mr. Aubrey D. Howard
1921	Dr. A.H. Rolph
1922-25	Miss Helen L. Beardmore
1926-27	Mr. F. Barry Hayes, Sr.
1928-29	Mr. P.H. Mitchell
1930-31	Lieut.-Col. Hugh A. Rose
1932-33	Mr. A.J. Webster
1934-35	Mr. P.L. Whytock
1936-37	Mr. A.J. Webster
1938-39	Mr. P.L. Whytock
1940	Mr. D.C. Patton
1941-42	Mr. A.A. Norton
1943-45	Activities Suspended
1946-47	Lieut.-Col. Hugh A. Rose
1948-49	Mr. A.J. Webster
1950-51	Mr. F.F. Dufton
1952-53	Miss Mabel Stoakley
1954-55	Mrs. P.H. Marshall
1956-57	Mr. F.F. Dufton
1958-59	Mr. W.J. Keenan
1968-61	Mrs. J.H. Baillie
1962-63	Mr. Eric Billington
1964-65	Lieut.-Col. F.E. Goulding
1966-67	Mr. M.A. Cadsby
1968	Mr. O.E. Bowles
1969-70	Lieut.-Col. F.E. Goulding
1971-72	Mr. J.W. Whytock
1973-74	Mr. M.A. Cadsby
1975-76	Mr. Keith Laver
1977	Mrs. W. Lyzaniwsky
1978-79	Mrs. J.H. Budd
1980-81	Mr. Ross B. Linton
1981-82	Mrs. Audrey Meiklejohn
1983	Mr. Timothy Bucknell
1984-85	Mrs. Ethel Freeman



ETHEL FREEMAN
President 1984-85

PRESIDENT'S MESSAGE

This has been a good year for the Canadian Rose Society. Rosecapades '85 was a huge success, with CRS members across the country working together. We have some hard-working, capable new members on the Board of Directors. The Annual is back on track, and our financial position has vastly improved over a year ago. Now the task is not to lose the momentum, but to build our membership, so we can improve our services. So, we hope you will all renew your membership for 1986, and even get a friend to join with you. If YOU help with membership, WE can provide quality service.

Two of the stalwart members of the Executive, Bea Hunter, our Executive Secretary, and Bill Comper, our Treasurer, are both being forced to resign because of ill health. We extend to them our thanks for their long years of service, and our every wish for their speedy return to good health.

In this, my last President's message, I would like to say several thank you's; to Ross Linton for looking after the Slide Library, to George Blyth for the Demonstration Gardens, to Evelyn Fallis for handling the Royal Winter Fair, to Ken McFarquhar for his work with our advertisers, to Mary Baillie for work on Judging and the Colour Guide, to Audrey Meiklejohn for the International Rose Show, to George Pagowski and Bob Keith for cultural advice. And of course, my thanks to Keith Laver, Milton and Maxine Cadsby, Jim Anderson, and Audrey for all their work on Rosecapades. And special thanks to Gerry Walker, Editor of *The Rosarian*, and Audrey Brisbane and Rachael Flood, who edit the *Clearing House* every year. What would the Canadian Rose Society be without all these people, and others like Paul Graber, Cec Lamrock, Dave Money and Bill Dunn, who give so generously of their time. Thank you one and all for your support and assistance.

This Annual is divided into two parts: the Clearing House and the Lectures of Rosecapades '85. If you attended Rosecapades '85, we know you will appreciate having this record of the Lecture Program. If you were not fortunate enough to have been there, you are in for a treat. The world's rose experts are here at your fingertips with the latest news from the rose world. ENJOY!

Ethel Freeman

THE 1985 INTERNATIONAL ROSE SHOW

Westin Hotel
Toronto, Ontario
June 23, 1985

Major Award Winners

Best Rose in Show	Keepsake (Esmeralda)	Harold Baker, Pekin, Illinois
Best White or Near White	Canadian White Star	George Mander, Coquitlam, B.C.
Best Pink or Pink Blend	Keepsake	Harold Baker, Pekin, Illinois
Best Red Rose	Red Queen	W.F. Terzia, Sagenaw, Michigan
Best Grandiflora	Love	Henry C. Jenkins, Jr. Niagara Falls, NY
Best Floribunda	Cherish	Rosemary Dobson, Agincourt, Ont.
Best Miniature	Red Beauty	W.L. Shealy, Somerville, NJ
Best Decorative Design		Georgina Mentis, Mississauga, Ont.
Sweepstakes (Highest Total Points)		W.L. Shealy, Somerville, NJ
P.L. Whytock Trophy	Little Darling Violet Carson City of Portsmouth	Stuart Else Toronto, Ont.
H.M. Eddie Trophy	Dortmund	Evelyn Fallis Toronto, Ont.
W.S. Keenan Bowl	Canadian White Star	George Mander Coquitlam, B.C.
K.G. Laver Trophy	Little Jacki Beauty Secret Double Joy Lavender Jewel Magic Carrousel Dreamglo Heidi Golden Angel	Paul & Ann Graber Toronto, Ont.
Paul B. Saunders Trophy	Folklore	Harold Baker, Pekin, Illinois
S. McGredy & Sons Cup	Chabilia, Pristine Double Delight Kordes Perfecta, Folklore Chrysler Imperial	Mrs. J.F. Smythe Marion, Ohio
Affiliated Societies Certificate		Hamilton & Burlington Rose Society

ROSECAPADES '85 LECTURE PROGRAMME

HYBRIDIZING MINIATURE ROSES

Dawn and Barry Eagles - New Zealand

Barry

The convention in Australia will be in early April, 1988. Come to New Zealand at the end of March and we'll still have some roses. Start in the south, because the roses are over quicker there.

They say that New Zealand grows the best roses in the world. Any New Zealander would agree. But then, Sean McCann visited and wrote that New Zealand does grow the best roses. So perhaps there is some truth in it. However, it creates some problems for us. Peter Harkness of Harkness Roses in England was in New Zealand and said to the National Rose Society, "I've been looking at the roses and I'm discovering a whole lot of new varieties. Not really new varieties. They are our own varieties, but I can't recognize them, because plants, which in England grow two feet high, are growing to three or four feet in New Zealand."

It creates difficulties for miniature rose growers as well, because miniature roses also tend to grow larger. If I can disgress briefly: any classification of roses which has in it a descriptive term, as part of the classification, must collapse as you go from one area to another. Because a rose which is small in one region may, in fact, be very large in another. And so, the term "small cluster flowered roses" is nonsense when you go from one place to another.

It makes it difficult for us when we pick up a catalogue and it says, 'Magic Carrousel' — 12 to 15 inches high. In New Zealand, 'Magic Carrousel' typically grows 3 feet high. 'Lavender Jewel' is described as 12 to 15 inches high and 15 inches across. 'Lavender Jewel', under our conditions may only grow 15 to 18 inches high, but typically it will grow 2½ feet across. Perhaps one of the greatest extremes is 'Pacesetter': described in catalogues as 15 to 18 inches tall, left to do its own thing, will grow 3 to 4 feet high.

Dawn will describe what people are looking for in New Zealand. We can hybridize outside. We can pollinate outside. We get about an 8-month growing season, so if the pollen doesn't take on the first flowers, we've always got a second flush of flowers coming along a few weeks later. We get growth from October to May.

Dawn

I've no intention of describing the mechanics of hybridizing. You probably all know a great deal more about it than I do. But, I would sow a few seeds, figuratively speaking.

Speaking as a commercial nursery person, some of the roses we get are not worth growing. They may be good roses over here, but they certainly aren't in New Zealand. Many are very disease prone, and mildew is one of our biggest problems. Forty to fifty percent of the roses we import and have under quarantine conditions, have so much mildew that I couldn't think of releasing them. So, don't just use parent plants because they are going to give pretty flowers! There's more to miniature rose growing than a pretty flower and a good shape.

There are several things, that I find interest the average home gardener that the commercial hybridizer is not producing. For one thing there is a big lack of miniature climbers. I need 'Little Girl', and not only in salmon pink — I want a dark red, an orange red, a yellow, a white and a pink. There is a big demand for good climbers in various colours, with a hybrid tea shape, and a long stem. We're getting quite a few ground covers, but once again, we need them in good colours and without mildew. And, of course, the most demand is for dark red miniatures with a scent. We have very few dark red roses. I ask these little old ladies, "How many times are you going to get down on your hands and knees to smell them?" They would take anything that withered into a dark brown or into a purple, if it had a scent.

We're starting to see miniature roses grown as cut florists' flowers. 'Pacesetter' is one of the most popular. It gives a flower 2½ inches across with a good hybrid tea shape, one to a stem, on a 3-foot high bush. We need more pastel coloured flowers because they use miniature roses in bridal bouquets, bridesmaid's bouquets and floral headpieces. We're also looking at miniature roses as flowering pot plants. We need something that looks good in a 5-inch pot, that we can sell to florists. It would have lots of little flowers, all open at once.

I feel personally, that there isn't as much demand for whites and pinks as there is for other colours. Sam McGredy says he never aims at breeding a pink rose, because ¾ of his seedlings are going to be that, in any case. As far as we are concerned, apart from 'Pacesetter', white roses really do not sell.

We have a trial ground in New Zealand. One of the roses there that impressed us very much was 'Scarlet Meilandina'. It has very good foliage, but not typical hybrid tea shaped flowers. That is one thing that doesn't worry people in New Zealand at all. Forget about your hybrid tea shaped flower. What they want is a bright rose, a healthy rose, a rose with good foliage. There is an orange red one as well, called 'Orange Sunblaze'. It has the same typical leaf form and a few more petals. It's going to be an extremely popular type of rose. 'Ragtime' is one of Sam McGredy's newer roses with the same type of form. It's a "hand painted" miniature rose. It has the same variability of colour as 'Martini'.

The story always is that commercial hybridists have to make so many crosses and produce so many seedlings to get one that is going to be commercially viable. The figure often mentioned is that there will be 1 in 25,000 seedlings that will be commercially good. I think sometimes, that puts amateur hybridists off from even starting. It's a bit like starting to walk a journey of a thousand miles. But it starts with the first step, and so does growing roses. You do not have to breed and grow 24,999 seedlings before you get one that's any good. It could well be the very first one that opens. We get a lot of enjoyment from it. We often just let the bees do our crossing and we collect the ripe hips from the garden. The bees do a good job, as we've had quite a few seedlings.

The first rose of our own that we released, was a deep pink moss called 'Selwyn Toogood'. Selwyn Toogood runs a women's chat show daily, and he always wears a rose, which we supply. One which we like, and that has the form that Frank Benardella is looking for, we would have liked to call, 'Baby Peace'. It has all the characteristics of 'Peace': the same shape of flower, the same sort of coloration, and the same sort of variation in colour. We discovered in the dictionary, a word that meant "peace offering". It comes from North America. It's called 'Calumet'. Another interesting rose is a single we call 'Golden Eagle'. And lastly, we are very hopeful of one, which we think is quite special: it doesn't get mildew; it has a nice flower shape; the flower holds. One of its few problems is that it has a lot of thorns. We have registered it as 'Moonlight Lady'.

MINIATURE ROSES

Ernie Williams - USA

I use miniature roses primarily in landscape situations; I think every breeder should have a wide type of seedlings. I don't want all of mine to be hybrid tea type, but I certainly want a large number of them to be that. I like ground covers, hanging baskets and climbers, and we're making good breakthroughs in some of these areas.

A good use of a garden feature is a large basket, planted with 'Dian' for one of my neighbours. 'Dian', one of Ralph Moore's early varieties, is a good hardy rose, well suited for this type of landscape planting. Another use is a screen in a small area, to block an undesirable view or feature. Miniatures are good in a rock garden. One of my favourite uses of miniatures is a door yard planting. A mixed planting will give a lot of bloom. Such a planting in a pot is for a warm climate, where you can leave them outside all winter - in colder climates you would have to store them.

Some good miniature climbers are 'Hi Ho', one of Ralph Moore's, 'Pink Cameo', 'Little Girl', and 'Jeanne Lajoie'. The last is also a good hanging basket plant. A strawberry jar makes a good miniature planter. 'Red Cascade', one of Ralph Moore's, can be planted in a half barrel. We get about seven bloom cycles a year from it.

I cover my seeds with glassine sugar bags, marked to tell what pollen was used. Hybridizing outside, we use the first three bloom cycles in the spring. We harvest the hips in October. You may never introduce a rose, but to a hybridizer, seeds are as valuable as gold.

I want to pay tribute to a very dear friend, who has been very helpful, Ralph S. Moore. 'Toy Clown' was a real breakthrough in rose breeding, as was 'Lavender Lace', the first good lavender miniature.

The following are some of our roses:

'Starglo' was our first hybrid that received national recognition to any degree. 'Kathy Robinson' is still winning blue ribbons in the show. 'Hula Girl' has the fragrance of a fresh sliced orange. 'Jeanne Lajoie' is a climber which also makes a gorgeous hanging basket. 'Sassy Lassy' is a bush rose: it's a yellow blend and makes a good hanging basket. 'Gloriglo' was on the cover of the American Rose Magazine. 'Careless Moment' is a white rose that picks up pink as it is exposed to the sun. We probably sell more 'Dreamglo' than any other one rose. We have 'Carnival Parade' and 'Sarah Jean', named for one of my daughters. Some people say that 'Big John' is large for a miniature. Well, it is, so that's why I named it 'Big John'.

Others are 'Charmglo', 'Bit o' Spring' and 'Amy's Delight', named for my granddaughter Amy. Now, Amy really doesn't care what colour her roses are, as long as they are pink. We also have 'Magic Mist', a deep misty red - I'm using that in my breeding program. 'Red Beauty' was best miniature in the show here. We have problems growing enough of it. 'Flameglo' is a very colourful rose and 'Anne's Delight' is named for my production manager. In cool weather, 'Hawaiian Sunrise' is a red and yellow bicolour. When it gets warm, it's a beautiful blend. 'Golden Song' is a climber that I'm using in my breeding again; and next year I will have a red miniature out of it that is fragrant, like allspice or cinnamon. 'Bit o' Gold' is a "micro" and a heavy bloomer. 'Angelglo' came out of 'Angel Face' and is also a "micro". 'Great Day' is yellow, with long pointed buds and, if grown without fertilization, has pretty good form. 'Spring Beauty' is a pastel. 'Break o' Dawn' is a climber with very fresh looking bloom; it doesn't have a whole lot of petals, but the outer petals are very broad and used to really good advantage. 'Loveglo' has had a great reception. To get the deep red brilliant colour on 'Black Jack', you must have brilliant weather. On the west coast, where they have smog and about 50 percent of the light, 'Blue Jack' is always dull, never brilliant. 'Fiesta Time' was the official rose of the ARS convention in San Antonio. 'Spring Melody' is an orange blend with very good form. It is slow growing and stays in scale.

Working with Ralph Moore's 'Red Cascade', I've recovered some ground cover roses, that are not easy to come by. 'Red Cascade' is nearly sterile, and the few seeds that you do get, do not germinate readily. Those that do germinate are undesirable plants, or the blooms are so small that you can't use them. But occasionally, you get a good one. It's a challenge, as much as anything else.

We got 'Pink Carpet'. The demand for it has been tremendous. They're



ESMERALDA HT (com.syn.: KEEPSAKE)
(Kordes - Germany - 1980)

Best Rose in the Show
International Rose Show, 1985, Toronto

using it for borders in fairly large gardens. The foliage is apple green in colour and it is glossy. I have never seen mildew or blackspot on this plant. 'Partyglo' is winning a lot of blue ribbons. To get the best colour on 'Red Love', you need good brilliant sunlight - in the smog area, it's a deep pink. 'Pink Beauty' is probably the heaviest blooming variety I have introduced in a bush rose. 'Cheryl's Delight' was named for my oldest daughter. When grown properly, it is a tremendous exhibition variety. With too much fertilizer you get a lot of extra petaloids in the centre, which makes for a fat bud, instead of a long pointed one. Again with 'Lavender Simplex', too much fertilizer produce a few extra petals. If you're going to show it, by all means, pull those extra petals out. 'Beauty Glo' is a tremendous exhibition variety, with long pointed buds and high centred blooms, with substance you wouldn't believe.

'Twilight Trail' is a new breakthrough for me. It's a lavender tan. I can get, almost at will, lavender tans now, so you will see more lavender tans and lavenders and tans, and hopefully browns.

'Fiddlers' Gold' is a very heavy blooming yellow, that holds its colour better than any yellow I've ever grown. It will keep you busy cutting off the seed hips, because practically every bloom will set a hip. You know "he who dances, must pay the fiddler", and with this much gold, you can dance all night! 'Amajeau' is an unusual rose, named for a long-time friend. In bright sunny weather you'll get red and yellow blooms, if it's cold and cloudy, you'll get cream and pink blooms. It has good substance and good form, on a plant that you can use as a bush or in a hanging basket. 'Cindy' is a deep pink, named for one of the garden writers in our area. It has a little bit of orange fire to it. It's a symmetrical bush, heavy blooming, and has hybrid tea form. 'Touch o' Midas' is a yellow climber. In sunny weather it has bright red edges, in dull weather it may have deep pink edges. At the proper stage, it has good hybrid tea form. 'Jazztime' is a special purpose climber; it grows to about 4 to 5 feet. The canes are willowy. It blooms in clusters and it makes a good hanging basket or a climber in the ground or in a large pot.

And lastly, I had the privilege of naming one of Ralph's seedlings, that I introduced, 'Nancy Hall'. It was introduced at the National Convention at Dallas in 1972.

He who would gather roses must not fear thorns.

- Dutch Proverb.

AMATEUR HYBRIDIZING OF MINIATURE ROSES

Frank Benardella - USA

They expect an amateur to talk about hybridizing miniature roses when I see Ralph Moore and Harm Saville sitting out there. But maybe I can bring them something new, by way of Jack Walters. Every time I develop a rose, I can't wait to show it to as many people as possible. I brought a rose to the show and put it in the seedling class. Everyone was hollering at me, but that's my fun. Harm came into the show and ran over and quickly took out his knife, which every good nurseryman carries in his pocket, and starts prodding out the eyes. But what he didn't know is that we soaked that little rose. That is what you do to stop people taking your cuttings. You mix up a batch of Roundup and soak the entire stem, right up to the neck of the rose, so that when the person steals your rose off the table, they go home with high hope, but 48 hours later, the thing is completely dead. No eyes are going to grow, nothing is going to happen. That's not cheating. That's plant protection. That's just as good as patenting.

When asked to talk about miniature roses, people say "There's Frank Benardella. What's he doing playing with those little roses?", since my reputation is in exhibiting large roses. It's simple. I've been growing rose seeds, strictly uncrossed seeds for about 25 years. My mentor, Jack Lisimore got me involved. And in all those years I had very little fruit. I had 'Pele' and I've kept two other large roses. I decided in 1980 to build a greenhouse. I always wanted a greenhouse to grow roses in all winter long. The only way I could figure to get a greenhouse was to buy the children a horse, because once they had a horse, I had to build a barn and then I could put the lean-to greenhouse on the barn. It worked! My greenhouse is approximately 14 x 32 feet, and I devote all of my hybridizing to miniature roses, primarily because of lack of space. I can get so much more out of miniature roses than I can from large roses.

I started off like every hotshot exhibitor, wanting to develop the best hybrid tea in the world. I put all my plants in five gallon containers, brought Pristine into the greenhouse, waited for the first flush, and I got three blooms. There's just no percentage in that.

The first plant that I used as a mother plant was 'Rise 'n Shine'. I had more than 300 seed hips on that one rose the first year. So you see, it's much easier and more fun playing with "minis" rather than large roses. I'm not going to say that I absolutely love minis over hybrid teas, because the truth is, I prefer floribundas. (And, I do not mean small-cluster flowered).

A lot of people ask what I use for parents in my crosses. I prefer to try to work with the latest possible varieties I can get. I would advise that if someone sends you roses for testing, do not use those roses for your hybridizing program unless you have their permission. You really have no right

toying with their property until after the product is on the market, or you have permission to use those particular varieties. But I do like to use the very latest roses that I can find. I know a lot of people like Ralph Moore are going off in many different directions, trying to bring things in from the past to develop a new future. For me it's simple: I'm having fun. For the commercial people, they're developing lines. They have to use A to Z to get to B. But, I use A and C and hopefully come out with B, the best. Bill Warriner mentioned in his lecture that he's going off on many different tangents. He has to have shrub roses and miniature roses. He needs big hybrid teas. He needs everything. So, he must devote his entire program to developing all these different things. My goals are simple. I only want to develop a miniature rose, with that absolutely perfect hybrid tea sitting on the stem. Other people are looking for pot forcing plants, all these other things. But, what you select for, that's what you will ultimately get.

Anyone can decide which parents to use, just by observing them in the garden. You always look for good foliage, lots of bloom, and quick repeat blooming. In a mother plant, I'm looking for a rose that's going to repeat quickly. And if a rose repeats quickly, that means you have a flower in the morning and a seed hip in the afternoon. That's really fast! I look for good foliage, short, compact plants, lots of bloom. I think foliage is extremely important when searching for new varieties. I don't particularly like dull foliage. I notice that all the best roses in the world have tremendous foliage to go along with the great bloom.

Let's talk about yellow roses just for a second. I have a problem with fading, as probably most people do, including Ralph Moore.

I originally started with 'Rise 'n Shine'. That thing was so beautiful. You can't get a better rounded plant, with lots of bloom. The problem is that I haven't had a stable dark yellow that I can say "I'm here with a yellow rose". I really don't know which rose I would use for yellow right now. Every year I import between one and two hundred new roses. I'm in search of that perfect rose to use in a hybridizing program. After a while you come to realize that some of your own seedlings, which are not necessarily good for the market, are very good mother and father plants. And, that's basically where I am now.

As I travel around the world, I pick up little ideas here and there, Peter Ilising, a few years ago, started using labels on his crosses rather than tags. I always used tags, and the tags seemed to twist. Now I'm using these little stick on tags. I don't use more than 10 different parents in the greenhouse. My philosophy is that I make a lot of crosses of the same parents. If I have 300 seed hips on a plant, 250 of them might all be the same cross. I experiment with a couple crosses at first and then I devote all my efforts to the same cross. With these little tags, it's a lot easier if you're working with 10 different roses. You can give each rose a number, and then you can pre-stamp the tags. You just put them around rather than hang those strings on the plant. I find that it works very , very well. Just make sure that you squeeze them quite tightly so they stick.

I have never attempted hybridizing outdoors, except this year. I only made my crosses in the greenhouse. I thought it was fruitless prior to that. I spent 20 years doing it outside, never really crossing, but I believe in our area we don't get enough daylight. It can be done, but not as successfully as I would like. My first attempt outside was on a red and white floribunda of my own that I have, and it's a great parent. It gives me massive trusses and perfect little hybrid tea blooms. I can get upward of 25 blooms on a stem. So, I wanted to hybridize that outdoors. It's been raining every other day, and I know that if it rains you are not going to get any seed hips (I think). So, I got out our beach umbrella and put it outside. I did the pollinating under the beach umbrella, and everything seemed to be going well. Except, yesterday afternoon, I called home and my mother-in-law said we had a very violent storm. My beach umbrella was going up and down the rose garden. I don't know what to expect when I get home!

I hope you at least learned what Jack taught us about using Roundup. I think that's the greatest thing since bottled beer.

MINIATURE ROSES

Harmon Saville - USA

I consider myself a hobbyist. My hobby has gone a little crazy, but I still approach growing and breeding of miniature roses as a hobbyist. A couple of days ago, Sam McGredy made, what I think is, the key statement by the various breeders. He used the phrase "I think". And the following is "what I think". I'm reminded of the song from "The King and I", where the king laments that he's not so sure of the things, that he absolutely knew before. And that's my story: the things I absolutely knew before, I'm not so sure of now. Now I have some other things that I'm absolutely sure of - and, I'm certain that I won't be so sure of them later.

I got into breeding for a couple of reasons. Because I am a hobbyist, there was a certain kind of rose that I wanted more of and I thought I would try and get it myself. And, I wanted to have a longer period to look at roses, before I put them in my catalogue. I was getting the best roses I could find from other people, but I couldn't get them until they were almost ready to be introduced. Then I had to make a quick decision and evaluation on whether to carry and how to describe them. So, I got into breeding on my own.

I think the US market, and I can speak primarily of that market, is interested in the form of the bloom, the colour and production. If it's got those things in ideal proportions, it's also very nice if it has the "plus" factors like fragrance, plant habit, disease resistance, etc. As a by-product of developing roses, because you want to save everything that looks interesting, you come up with a lot of singles. Very few are outstanding. In making crosses and trying different approaches, you come up with

hanging basket types, climbers, and way out novelties, like browns and greys and stripes and mosses and things you don't even expect. There's a certain group around, that is looking for the very smallest miniatures. A while back, I coined the phrase "micro-mini", when skirts were short, and it's become almost generic. We try to introduce some micro-minis each year. We do try to have form, colour and production along with the smallness.

As I go around the world and observe other breeders' work, I'm impressed by the fact that this type of breeding is only going on in the United States and Canada. The main objectives for breeders in other countries apparently, is for massive amounts of bloom, landscape type miniatures, pot forcing type miniatures, without really a whole lot of concern for the bloom form. When I thought I knew, I said, "Those would never sell in North America". Sure, it has a lot of bloom and it's beautiful, but the American public needs bloom form. Now I'm not so sure. We have been holding back plants that have lots of production and are good pot plants, but lacked form. Now, I think there is a place for them and an entirely different market. I've looked at the work of de Ruiter, Meilland, Pat Dickson, and McGredy. At first I thought they were all missing out on form. But now, I can really see the benefits of what they are doing. What I'm expecting to happen is that we've grown apart this way, and we're going to come together. We'll wind up with those kinds of massive blooms, brilliant colours, pot forcing types, landscape types, and with the flower form.

I've heard talks at this meeting, specifying the type of rose people want. Ordering it up like a hamburger - "I want some onions on it", etc. It really isn't quite that simple to create a rose to specifications. Breeding roses is extremely easy: there's no trick at all to making babies - anyone can do it, even a beginner, whether it's people or roses. Selection is what is important. Selecting for a specific market is the difficult part, and it's where varying degrees of skill come in. I could make a comparison: it's like going through all the hospitals and looking at all the babies, and picking in the crib the one who's going to be president of the Rose Society, the one who is going to be a director, the one who's going to be a state senator, and the one who is going to be president or king or prime minister. It is very, very difficult to make that selection at such an early stage. And yet, you have to do that if you're dealing with large numbers of seedlings. You have to pick out the ones that are going to be the outstanding ones, and there is a bit of a trick to that.

I do think the future of miniatures is going to show some really amazing things, things we can't even imagine. But the things that the European breeders are doing, and the things that the American miniature breeders are doing will converge and then we're going to have some really fantastic roses in the future.

Some new roses that have been very successful are 'Centerpiece' and 'Winsome', which won ARS awards. We introduced two of Frank Benardella's which won Awards of Excellence: 'Black Jade' and 'Jennifer'. We also introduced a single rose with moss, 'Double Fragrance'. It's a hanging

basket rose with a graceful habit. It's in no way a show rose, but it just covers itself with bright pink blooms, on a background of very glossy foliage.

We've had several red ones in a row. 'Happy Hour' is a brilliant red that gets more brilliant the hotter the sun is. One of the fairly recent introductions is a light pink called 'Minnie Pearl', which is doing quite well in the rose shows. A fragrant dark yellow called 'Centergold' has the added benefit of occasionally throwing pure white blooms and all shades in between. Another fairly recent introduction is 'Acey Deucy', which is doing quite well on the show tables. It's a good grower and it can also be used in a hanging basket, because it has a spreading habit.

Sometimes you get a surprise. One of our last year's Award of Excellence winners was 'Julie Ann'. I was really convinced that it was the near-to perfect rose. It had very brilliant colour, superb hybrid tea form, an excellent bush, vigorous, a very high degree of fragrance. We put it out convinced it had very few, if any, major faults. Then it started growing near the coast, and we found it very susceptible to mildew there. We had no hint of it, even though we were growing it in southern California.

For next year we have a bright lavender garden rose, which is not a show rose, but has a very strong damask fragrance. To me it is almost unpleasant, it's so strong. We've applied for the name 'Sachet'. We also have one named for my last, prettiest, cutest, smartest granddaughter. That will be 'Baby Diana'. It's an extremely brilliant, very highly scented, orange-red and yellow bloom on a very vigorous plant with a great profusion of bloom.

Others we have are 'High Spirits', 'Wedded Bliss', - a hanging basket variety and 'Cornsilk', which is cornsilk yellow at its best, but in cool weather it has a definite pink tinge. 'Rainbow's End' is in the trials and I think it will do very well on the show tables. This is the epitome of what I am looking for: excellent form, bright colour, good production on a compact symmetrical bush, without candelabra sprays, and it's an all-round easy rose to grow.

Advice is never appreciated, for if it turns out well, the recipient thinks it was his own idea; if it turns out badly, he eternally blames the giver.

- Sydney Harris

MINIATURE ROSES

Ralph Moore - USA

To really know the rose of your garden today, one should have a sweep of rose history. How did the roses that we know and grow today, come about? Briefly, all roses, including miniatures, came from wild roses. That is the way God made the rose in the first place. Still today, a single, five-petalled rose, in its simplicity of form and colour, can be a delight. The double forms of roses were found and cultivated, possibly because they were different. And we are still looking for the new, the different and the novel in the rose.

In the background of most roses cultivated today, are a parade of the genes from the roses of yesterday. Among these roots are the Bourbons, Chinas, Centifolias, Damasks, Hybrid Perpetuals, Teas, Polyanthas and others. Numerous species have been brought into the blood lines of the rose by breeders. Among them are multiflora, wichuriana, rugosa, bracteata and others. Just to trace the history and ancestry of a modern rose back through history can be an eyeopener. Unfortunately, many are now only names, as the roses themselves have been lost.

It is interesting to note that each class or type of rose held sway in the public fancy for a number of years. Each rising for a time, often over many years, before interest waned, only to be succeeded by other varieties and types. For example, at one time there were hundreds of hybrid perpetuals listed in nursery catalogues of the day. But now, one has to search for the few kinds that are left. The Chinas suffered the same fate, as did their successors, the teas. The tea roses was thought to have first arrived in England from China in the early 1800s. A number of varieties were then developed from seedlings. Beauregard's 'Safrano' (1839) is thought to be the first rose originating from controlled hand pollination. My grandmother had it in her garden, as did my mother, and now we're making some crosses with it. So, we dip back into history and we have some tea-miniature crosses.

After 'Safrano', there were many others. Among these, 'Catherine Mermet' (1869), 'Madame Bellecot', 'Papa Gontier' (1882), another one we're using in our breeding to get "mini-hybrid teas." Between 1821 and 1948, when the last recorded tea was introduced, 274 raisers are credited with a total of 1388 varieties of tea roses. Today, only a few of these are left. Will the hybrid teas and the minis see the same fate?

Each new class or variety is created to fulfill a need or a desire. What do we want in our roses of tomorrow? In citing the story of the rise and fall of the tea rose, I do not infer that this class is or was in any way inferior or less desirable than our modern roses. But I do suggest that nothing is static. Even the best of today's roses will give way to other varieties and types for

tomorrow. In my lifetime, I have seen the rise and development of our beloved miniatures. You might say that I've been midwife at the birth of many varieties, that have made the present world of miniatures possible. Thus in 50 years, from 'Tom Thumb' to the present, the development of miniature roses, as we know it, has been accomplished. So, before we take a look into the crystal ball, let's reflect where we are now, and how we got there.

My introduction to miniature roses came in 1936, when I acquired a plant of *Rosa roulettii*. Both de Vinck in Holland and Pedro Dot in Spain had made crosses using this first miniature rose. Next, I obtained cuttings of 'Oakington Ruby' and made crosses between it and 'Floradora', which was a relatively new import. That is the rose that Walter Lammerts later used to create 'Queen Elizabeth'. So, many of your miniatures are akin to 'Queen Elizabeth'. From this cross I obtained an upright growing plant with small dark red flowers, which burned terribly in the sun. It did not set seed, but it would make some pollen.

In the meantime, I had crossed *Rosa wichuraiana* with 'Floradora', and from 50+ seedlings, I selected one plant, known as 04719. This rambler type rose became the key link in today's miniature roses. When it was crossed with the above red seedling of 'Oakington Ruby' x 'Floradora', a series of seedlings were born. One of the very first ones was 'Dian'. And, out of that came 'Little Buckaroo', 'Westmont', 'Red Germain', and others. Out of 'Westmont' came 'Magic Carrousel', 'Over the Rainbow', and 'Little Girl', etc. 'Little Buckaroo' crosses have produced several popular miniature varieties. And out of 'Red Germain' came the great yellow rose, 'Rise n' Shine'.

Today we stand on the threshold of tomorrow. We can survey an astonishing array of miniatures in all colours known to the rose. All this material is waiting, yes begging, for those breeders willing to take a chance. But we must also ask the question "Is all this accomplishment a culmination or is it a new tool?" Yes, we will have many more beautiful new miniatures, but will we be just stirring the same old pot? Today, many of the new miniatures are just a repeat of many already being grown. The same is true of the hybrid teas and the floribundas. I believe that we, as rose breeders, have a powerful tool in the best of today's miniature roses. Not just to make more miniature roses, but by careful and daring crosses, to remake the whole world of roses. Such an opportunity has never existed before. In general, the miniature is more hardy than most hybrid tea or floribunda varieties. Miniatures tend to take on many forms, climbers, shrubs, ground covers, pot plants and flowers for cutting. And they root easily. In general, most American miniature roses propagate much faster and easier than the European ones, because they are mainly based on varieties that have gone through my hands. And we definitely selected varieties for easy rooting.

So, in the melding of the miniatures with all other types of roses, I see the development of great new roses, of which we are now only dreaming. In closing, I would like to mention some of the new roses from our breeding,

which will be offered in the 1986 season and beyond.

We planted more than 80,000 seeds this year, all hand crossed. Out of that, we potted out about 700 that bloomed. We also have several hundred more that did not bloom, that we are still waiting to look at. Our crosses were made looking toward ground covers, other moss roses, some of the rugosa hybrids, and other species hybrids. It is not an immediate result you're looking for. It may be two, three, five years before you are able to move on. So, I'm trying to run faster. Time's catching up with me, but I'm going to keep on running, as long as I can!

I'm very interested in a red rose we have, that drops its petals before it fades. We're looking for roses that will hold and hold in your garden, particularly red, because most of them fade disgracefully. I also have a little climber or a shrub type rose that is almost single and gets up to 5 feet. It's a cross between a yellow miniature climber and 'Playboy'. The colour is delightful, and it will possibly be used for other breeding, later on.

Another new one we're quite interested in is a ground cover, but we are growing some on weeping standards. It was entered in the All-America Trials this year by Armstrong Nurseries. It blooms repeatedly from early spring until frost. It's a cross of a little rose of mine called 'Papoose', which was *R. wichuraiana* crossed with the rose 'Zee'. 'Papoose' is white, like a little strawberry bloom. It flowers very heavily in the spring. We crossed 'Papoose' with 'Playboy' again and again, and got nothing but this one bicolor. Whether it makes All-America or not, I think you'll see it in your gardens.

There is another new one of the 'Toy Clown', 'Magic Carrousel' type, that has an entirely different background, but it attracts a good deal of attention. It's a little bit tall, but it's interesting because of the very sharp demarcation of the red and the white. We also have a new little ground cover. We budded it on a standard about 2½ feet high, in a large container, and it just draped clear down to the bottom of the pot. In bloom it is very fragrant. We've tried it in hanging baskets.

We have several striped varieties. 'Strange Music' is being introduced in Europe this year by Meilland, as a pot plant. It is a very compact plant and a heavy bloomer. They said the Europeans wouldn't like stripes, but they decided to go ahead with this one. We also have 'Earthquake' and 'Whynot'. I'm constantly asked if it is from 'Eyepaint' or one of the other handpainted ones. It has no handpaint in it at all. It happens to be 'Golden Angel' crossed with an unnamed red moss seedling. It's quite mossy. It is a floribunda type plant with red to orange red flower with a yellow base.

'Millie Walters' didn't win an All-America Rose Selection (AARS) award but, it is fast making friends and it is a good exhibition rose. 'Make Believe' is very dark on the outside of the petal, almost a purple, and then, as it opens it is a reddish purple fragrant rose. It's not for exhibition or cutting, but it's good for the garden and excellent for hanging baskets. You can use it for massing or for borders. It should be very hardy, because it has the old

violet Rambler in it, as well as *R. wichuraiana* and *R. multibracteata*. The bloom goes from a soft lilac colour to fuchsia to almost petunia purple. The weight of the blooms causes the canes to bend over. It's in bloom nearly all of the time.

'Queen Crest' has very heavy crestring. It's a new "old fashioned" type. It is a sister seedling to 'Crested Jewel', only this one is like the old Crested Moss. It comes from 'Little Darling' crossed with Crested Moss. We've had it around for a number of years. It is scheduled to be in Wayside's catalogue in 1987.

Another one is pink. I almost threw it away. It's a shrub type rose. I've been doing some rugosa hybrids and you get mostly one time bloomers and full size roses out of rugosa crosses. Rugosa is very difficult to work with. As a seed parent, it sets seed very easily but the seedlings are reproductions of the mother. So, we are using it for pollen. One of the seedlings repeats from spring until frost and it is quite fragrant. It's a light to deep rosy pink. Another rugosa miniature hybrid we have is, as far as we know, the only yellow rugosa that repeat-blooms. The only other yellow rugosa is 'Agnes'. It blooms very briefly in the spring with a light yellow flower. My rose has a yellow bud that lightens and becomes creamy as it opens, and then it drops off cleanly. It blooms on a very small plant in a 4-inch pot. It flowers in clusters and is very fragrant. It will make a shrub, probably up to about 3 feet high. It should be very hardy. It has 'Belle Poitevine' in it, some of the Brownell sub-zero, *Rosa wichuraiana* and some miniature in it. It will also be in Wayside's 1987 catalogue. The size of the open bloom is about 3 inches. Right now, the name is 'Gold Rugosa'. To date, it is the only miniature I've had from rugosa hybrid parentage.

EUROPEAN MINIATURE ROSES

Sean McCann - Ireland

The miniatures that I've seen throughout the United States, should get a passing mention. 'Black Jade' and 'Rainbow's End' have impressed me. Dee Bennett in California is producing a lot of good miniatures. Her 'Jean Kenneally' is first class. Betty Jolly's 'Snowbridge' is marvelous, as are Neil Jolly's 'Loving Touch' and Sam McGredy's 'Freegold'. And, as I'm in Canada, I think that Keith Laver deserves a mention as well: 'Blueblood' has been around for a while; 'Sun Princess' is a super pot plant, with a compact habit and lots of bloom. A scarlet rose that comes in huge sprays is called 'Mountie'. And, we've been looking for a long time now for another yellow, to come somewhere near 'Rise n' Shine'. No doubt 'Goldmine' has got it in the breeding somewhere. He has a number of other ones, especially 'Ontario Celebration' and his Potluck series.

As far as I'm concerned, the best miniature we have seen, produced in Europe, for a long time is 'Angela Rippon'. In places in the USA it had an

8.5 rating for both garden and show. You may not get a lot of show blooms out of it, but it's magnificent in the garden. It was bred by de Ruiter and is a salmon pink and first class.

I suppose I could just bring out a list of European varieties, but there are so many things happening in Europe at the moment! One of the unfortunate things is the introduction of new roses with old variety names, like 'Dwarf King' and 'Dwarf Queen'. They are different roses! Surely, there are enough names to give to roses, without having that happen. If I am Sean McCann in New Zealand or America or wherever, why cannot the darn rose have its own name?

The big talk everywhere is what I'm calling "macromania". These in-between roses are the ones that are too big for miniatures and too small for floribundas. In England, there are so many of them that when you pick up a catalogue, you find the same rose sold as a floribunda and also as a miniature. Which is an odd sort of way to run a business. There has been a proliferation of classification names. It started with Ben Williams and his "miniflora", a name he patented. After that we had "patio roses", which I think is far too restrictive. And you've got "sweetheart roses" here. It's a lovely name, being a romantic at heart. But it's actually the registered name for a Cocker rose, which is a very good hybrid tea show rose. Then Gene King had his "maximinis". They are cushion roses. And there are "rosa-minis", and "macrominis", and "minimos", as de Ruiter calls them. There is tremendously aggressive marketing from Meillands in France for their 'Sunblaze', their "Meilandinas", their "Medilands". And I ask myself where will it all end. I am told that the WFRS Classification Committee had decided that these in-between roses are going to be called "dwarf cluster-flowered" roses. Yech! Now to me, you've got to put in a little romanticism. I'll even accept "sweetheart" rather than this. What's going to happen when we get miniature hybrid tea type flowers - one flower to a stem? Are we going to call them "dwarf large flowered miniatures"? Rose Gilardi had one of the best names in the American Rose Magazine last year. She called them "pettifloras". No matter what we call them, we're going to have to recognize them, because they are today exactly where the miniatures were ten years ago. They are going to increase quicker than the miniatures did because so many growers are crossing floribundas and hybrid teas, hybrid teas and miniatures, etc. You're going to get a lot more of them. And I find, in my own garden, when people come to look at flowers, they go, strangely enough, to these in-betweens. And they say "Well maybe the miniature is a little too small for me, as a flower." For instance, one of the big winners in my garden so far this year, was 'Winsome'. I've only one plant of it, but people love it. It's a little bit bigger than your idea of what a miniature is, but it's a first class rose. There is another one that fits into this category very well, and that's 'Antique Window'.

What are miniature roses like in Europe? What Europeans really want from their roses is a rose that is going to bloom a lot. You all know that European breeders are going mad about ground covers. Most of them began with the Japanese miniature climber, 'Nozomi'. I grow it as a pot plant and it grows very well. It is only a once-a-year bloomer, but it is a very

useful plant. There is a brilliant showing of it growing over a rock in Liverpool.

But for me, the ground cover that is the best of them all is 'Angelita', by Sam McGredy. Too many European ground cover plants are all growth and thorns and foliage, as opposed to this plant with its soft-little white flowers with yellow centres. In England, I think, they are calling it 'Snow-drop', a ridiculous name. Kordes has 'Grouse' and 'Partridge'. They shoot along the ground in big sprays and then go up and over the hill, if you like!

Poulsens have a whole series of "Bell roses", 'Red Bells', 'Pink Bells', 'White Bells', etc. Again, this is a ground cover type plant, that blooms profusely. They have great disease resistance, which most people are looking for, although ground covers are much easier to spray, than a lot of other plants. Their 'Red Hit' is a profuse flowering plant that can be used in troughs or baskets. Europeans are now getting shape into their miniatures. Of course, we see most of them budded, and I don't know how they will perform on their own roots.

There is a rose which is causing me a bit of bother and it will probably cause you some too: it is Pat Dickson's 'Peekaboo', ('Brass Ring' in the USA). It is registered as a miniature, although many disagree with that. It is the beginning of a whole range of roses, that Pat Dickson is starting with this year. He's won a lot of awards with them in Europe. You get a mass of flowers in a very pretty colour, on what amounts to a low shrub. The one I'm growing at my back door is called 'Dicmickey' at the moment. It's an upright bush of about 18 inches with beautiful little flowers on it. There is another one called 'Diclulu', named after a young singer in England, called Lulu. It's going to be introduced next year. When it's small it's very good, flowering its head off. The foliage is good and the plant is fantastic for the number of flowers it produces. But there aren't enough petals on the thumb-sized blooms. 'Anna Ford', by Jack Harkness, is one of those "in-betweeners". It's bred from Meilland's 'Darling Flame'. It's a very neat little grower with in-between size flowers.

Exactly 50 years ago this month the first deal was signed for 'Tom Thumb', de Vink's rose from Holland. I've got a copy of it at home. You'd be amazed at the price, even then. But that was the first miniature. An English gentleman by the name of Thomas Robinson bought it. Robinson went on to breed a lot of roses himself, and recently, his grandson has decided to take it up. He is breeding in Guernsey, a small island off the south of England. He's just breeding, not selling. But he has a number of very good miniatures and shrubs that are winning prizes!.

How much you do is important. How well you do it is decisive.

AMATEUR HYBRIDIZING

Eric Welch - Australia

First I would like to tell you a little bit about Australia. It is a country about 2000 miles across and very diversified, and until the last war, we had only 17 million people living in the main cities. Most of the population live in these cities or around the coast.

Hybridizing has always been carried out by amateurs in Australia and as early as 1918 we have had roses registered in Australia. One of our first hybridizers was Mr. Alfie Clarke - he hybridized between 1919 and 1930, using *Rosa gigantea* from Asia, and developed several climbers and a winter flowering rose. In Melbourne, in particular, many people use this rose as a hedge and with its winter flowering habit it can be most spectacular. Later, in Sydney, Reil Muller developed a nice deep pink pillar rose which flowered all season.

In the 1950s George Dawson in Melbourne, tried to breed disease-resistant roses with some success, and in the last 20 years, Ron Bell in Melbourne, has developed a deep yellow rose which is popular.

When you start hybridizing people ask why you do it. Well, self-satisfaction, I suppose; to create something to improve upon nature; maybe you can leave something worthwhile behind.

I am interested mainly in exhibition roses. We find in Australia that it is difficult to get roses with form due to our climate: we have very bright sun and no smog. Roses have to be non-fading and we find that most of the roses introduced in Australia over the past years do not make the grade as exhibition roses; they go very quickly, and either have about twenty petals, or if they have more petals, they are flat and we cannot get the high centre we are looking for.

I only grow about 100 seedlings per year. However, over the past two years I have not had as many seedlings, as I had to move gardens. Also my seed germination has not been as good as in the past. I plant my seedlings outside in the garden. I used to cover them but now I don't bother. I leave it to the weather, but if we get a lot of rain, I get losses from fungus.

I do my fertilization over Christmas - we get the second flush of bloom at that time. I do not do any during the first blooming period: in our climate the hips will still ripen by May which is our fall.

If you have plenty of time you can use roses that set seed now and again, but I try to work with good seed parents, as I have a limited amount of time. With roses that are very fertile and set seed easily, I throw all sorts of pollen on them at one time. I find that one variety that works all the time is McGredy's 'Red Lion'. This has a very mixed background in its blood line. It has the ability to pass on the pollen parents' characteristics so this gives you a wide colour range. For instance from a cross of it with 'Tricia' I have got a very interesting lime green hybrid tea.

If you cross reds you get a few pinks, but mostly reds. Reds are hard to get from other roses. When I use 'Paradise' I get velvety dark reds. Also I use a bi-colour called 'Mascot' - yellow with a red edge - it opens very quickly, like 'Red Lion'. From this I have a seedling which is a lovely cream and pink bi-colour with a very strong perfume and I am looking forward to having this on the show bench.

I don't hybridize many miniatures but I have an ambition to hybridize one that resembles 'Redgold'. I finally got a good seedling from a cross of 'Avondale' and 'Redgold' which I recrossed with 'Avondale' again. From this latter cross I got a miniature which I called 'Tracey Wickham' after the world famous swimmer.

One of the good things about this rose is that it repeats quickly like 'Redgold' and starts to make breaks before the actual bud. This is desirable in our climate. It is an advantage to have these breaks coming before the flower opens, for this gives you continuous blooming and I think this is very important, as too many miniatures are slow to repeat. It also has a strong perfume - the strongest that I know of - stronger than 'Beauty Secret'.

I have not done many miniatures this year, concentrating on the large roses now because there is such a host of miniatures coming onto the market. You need to get something outstanding to sell!

AMATEUR HYBRIDIZING OF LARGE ROSES

Barbara Maas - USA

I would like to discuss the roses I use as parents in my hybridizing program. One of my favourites is 'Julias's Rose', both as a seed parent, as well as a pollen parent. It has a lot of pollen, and I use it both ways. The parents of Julia are 'Dr. H.A. Verhage' and 'Blue Moon'. I've been trying to get 'Dr. H.A. Verhage' for the last 3 years. The first 2 years, the company was sold out, and this year, the plants I got were so poor, they were black. (It is known as 'Golden Wave' in the States). 'Blue Moon', other parent, is a good parent, but most of the seedlings are mauve or pink. I've succeeded in getting a few brown roses from 'Julia', but they've all been single with 12 to 16 petals. I've used these seedlings in crossing this year. Hopefully, next year I will have something else. It will be interesting to see what this will be.

I have a white grandiflora, or rather, it is between a grandiflora and a floribunda. It's not low enough for a floribunda, nor high enough for a really good grandiflora. But that might be because it grows in Wisconsin. The parents are 'First Prize' and 'Big Ben', of all things. It's hardy, it has good form, it's a good seed and a pollen parent. So far however, nothing really spectacular has come forth from it. But I'll keep trying. I'm hoping to enter this rose in one of the trial gardens in a year or two.

I would like to instill the fragrance of 'Papa Meilland' in my seedlings, but this endeavour seems to be a lost cause. This is really one of my favourite roses, because of the fragrance. I only wish it would have more substance.

In order to get a good yellow rose, I'm using 'New Day', 'Gold Medal', 'Helmut Schmidt', 'Peer Gynt', and the old 'Golden Jubilee', that is supposed to be very blackspot resistant, according to Bill Raddeler, who is from Wisconsin and the Director of the Boerner Botanical Gardens. He uses it a lot in his hybridizing program. The form of this rose is not too good, and this often shows up in the seedling as poor form. If 'Northern Lights', 'Irish Gold', or 'Ann Harkness', which is a gorgeous floribunda, are blooming, I also use them for some of the crosses.

This year I have a seedling from 'New Day' x 'Pascali', that could hopefully become a good parent. I really don't know what the bloom will look like, because as the bud unfurled, I took off the petals because I wanted to use it as a seed parent. I use 'Pascali' in some of the hybridizing because it has a tight bud and it opens slowly.

Another good seed parent is 'White Masterpiece'. In my garden the parent is a poor performer, but some of the offsprings have been very nice, although the poor bush form seems to carry through from 'White Masterpiece'.

I also use some of the pinks. I don't use a lot of them, but I don't ignore them. For instance, 'Silver Jubilee' is very healthy and it is always in bloom in my garden. It seems to be a better pollen parent than a seed parent. I like 'Flamingo', but the seedlings have not overwhelmed me.

I have a seedling of 'Starburst' x 'Bob Hope' and I'm hoping that it will be ready for the trial garden in a couple of years. The only problem with it, after having it in the garden for 8 years, and it was just wonderful, this year it isn't doing so well. It did win a blue ribbon on the show table, although it isn't really a recommended show rose.

As you can gather, I import some roses from Europe, so I can get some of the newer types. I guess I have the same feeling as Frank Benardella, that I like to use a lot of the newer ones. I want to use 'Esmeralda' and a new English rose called 'Sweetheart'. 'Pristine' has selfed itself in my garden and the seedlings are very healthy, and the flowers have good substance. I'd like to use 'Double Delight' and I'm tempted to use 'La Minuette'. It is a nice little floribunda. It is a slow grower but it has a lot of florescence.

I used to use 'Medallion', but the seedlings from 'Medallion' were awful. They have a lot of mildew and they didn't stand up too well - so I no longer have it in my garden. I've used 'First Prize' with 'Tropicana', and with 'Big Ben'. The latter gave me a rose that looks very much like 'French Lace'.

I may use 'Northern Lights', if it is available. Also, 'Louisiana' might be used as one of my parents, although it is really a very stingy bloomer in my garden, but it has a very nice form. When I was down by San Antonio,

I saw 'Candlelight' in a garden, and it was wonderful. It grew really large. In my garden it was absolutely nothing, and so I no longer have it. It hasn't frozen out, but it does nothing. I sometimes use 'Showtime' which blooms very wonderfully in my garden. It has wonderful foliage and some wonderful flowers. I haven't really used 'Aquarius', but I'm thinking about it. Every time I want a rose in the garden, 'Aquarius' is blooming: it has a good repeat bloom habit and it's quite strong.

'Pristine' is just beautiful in the garden, but it's awfully stingy; but it has good foliage and good petals. I've tried 'Folklore' for the first time this year. And I really like 'Little Flamingo', but I'm not sure that it's going to give me anything really good.

And all of a sudden this year, I noticed a seedling in the garden: I don't remember who the parents are and I don't remember it from last year. It just was there and I never noticed it. But this year, it really seems to have a nice little flower, so it's something that I'm going to watch!

I do all my hybridizing outdoors and I don't have a big yard, and I don't have a lot of bushes of everything. So, I take what I can get and make the most of it.

AMATEUR HYBRIDIZING OF LARGE ROSES

Thomas McMillan - USA

Barbara Maas talked about some of her favourite rose-parents. I have my favourites as well: one is 'Paradise', a mauve blend: sets seed readily, and is a pleasant colour combination. People who do back yard gardening need to have varieties that have both seed-parent potential, as well as pollen potential. It is important that you get varieties that will go both ways, unless you have a great deal of land. A European variety that I like is 'Baron de Rothschild'. It is a lovely rose colour, fragrant and has glossy foliage. Glossy foliage is something American breeders have to get into more. We've made wonderful strides in many aspects, but glossy foliage needs to be emphasized to a greater extent. 'Pink Tribute' is another pink I like; 'Blue Nile' is good both ways, and another one I like is 'Antigua', a very pleasant apricot blend.

In floribundas, I like 'Little Darling'. I'm sure Ralph Moore has also found that very useful in his miniature breeding. It was one of the parents of 'Rise 'n Shine', the most famous yellow miniature of all times. (Ralph has said that in 1987 he'll be having a yellow with a great leap forward in the yellow classification.) I also like 'Deep Purple', - I think it's one of the best varieties for hybridizing I've ever found. It is second only to 'Little Darling'. 'Deep Purple' is a clear coloured mauve. It will take pollen from miniatures, hybrid teas and grandifloras, and give floribundas. 'Intrigue' is another deep mauve. I'm doing a lot of crosses with 'Deep Purple' and 'Intrigue'. If you can get a little bit better form on 'Intrigue', I think you will really have something! 'Impatient' is a new one from Jackson and Perkins. It's a bright orange, very vigorous in growth, and disease resistant.

It's good both ways. You might want to try crossing it with 'Irish Mist', an older floribunda rose with excellent form, and maybe you can get a little brighter orange colour. And finally, 'French Lace' is a beautiful creamy-white floribunda, that does not produce pollen, but it's very good for seed.

Grandifloras I like are the old 'Queen Elizabeth', 'Pink Parfait', 'Mount Shasta', and 'Love', a red and white bicolour. One thing I like about 'Love' is that it's hardy for northern climates and the bushes grow straight up and don't sprawl.

If you have a variety that you are particularly fond of, but it does not set seed, try making a cutting of it. It's said that 'Fragrant Cloud' will not set seed readily on its grafted root, but on its own root, it will set seed readily.

In the northern climates our pollinating season is rather limited. If we can get 3 or 4 weeks in the year for pollinating, we're lucky. I usually remove all the petals except the outer row. That's the five remaining petals, so that it is easy to identify the next day when I go out to pollinate them. I pollinate as soon as I've taken away the anthers and emasculated the bloom, just in case the stigma becomes receptive overnight. I follow the first application of pollen with a second application the next day. And I've had much better success with hip-take (fruit set) using this double application method. I remove the stamen from the bloom, using tweezers. I just pull them off and put them in a baby food jar. Of course, don't put the lids back on, or the moisture will not evaporate. Put some tape on the outside of the jar and mark the variety of pollen on it. The pollen is released starting about eight hours after it is harvested and should be ready for use after 24 hours. Shake the jar gently and the pollen will spread on the bottom of it, and it's ready for application.

Articles on rose hybridization say to use a brush for pollinating. If you use an artist's brush, be sure that it is camel hair. Do not use the nylon type that is more readily available, because the pollen doesn't stick to the nylon. But it seems like more and more hybridizers are skipping the brush part of it. I use the finger method. I just stick my finger in the bottom of the jar, get some pollen on it and then rub it very gently on the stigmas of the mother bush. And that works very well. I have to wipe the excess pollen off on a piece of rag or the seat of my britches, whatever is handy.

These articles also say that it is necessary to cover the hips. Well, it really is not. Bees are not attracted to a hip that has had all the petals removed, and so you really do not have to worry about having foreign pollen brought on the hips. But, I'm not too fussy about that either, because bees can do a good job pollinating also: so if you're not a purist, don't worry about the bees.

I do cover any hips as soon as I see that the pollination has been successful, because we have rabbits and squirrels in our backyard, and they love rose hips. I use 3-inch squares of aluminum foil and place them around the

hips that are near the ground, where a squirrel or a rabbit can reach. Once in a while, you get a varmit with a high IQ, and they will pull the foil up and munch away on the hips anyway. It's the exception rather than the rule. I have also read, that aluminum foil on the hips will speed up the process of ripening. And, of course, that's very important for the northern growers. But leave a little room for air to circulate. Don't squeeze it so tightly around the stem, that no air can get in there, or you'll have sort of a barbecued hip. Like Barbara Maas, I use chicken wire around my beds to ward off the rabbits.

I like to take the pollen that I'm going to store and put it in a cupcake paper. I put the cupcake paper in a cupcake baking tin, I wait 24 hours, and by that time the pollen has come loose from the anthers, and then I put it into a little capsule. I use a 35 mm film cartridge and label it, and store it in the freezer until next year. And it does work. You will have about the same rate of success with frozen pollen as you do with any other pollen. If you have some highly desirable pollen that you really want to use on a particular cross, you can get your pollen even after the pollinating season. Then you're ready for the first blooms the next spring.

I also recommend that if you're a serious amateur and want to propagate your seedlings as quickly as possible, get involved with a misting system. I have a little outfit at home. It's just one fogger, one nozzle. It will cover an area up to 4 feet. This way you can quickly propagate the seedlings. You'll need a timer to turn the water on and off. The whole idea of misting, is to always keep a layer of moisture on the foliage of your cutting. That way, the cutting receives enough moisture to get started, for the roots to form. I would recommend a timer that you could turn on, maybe every 15 minutes for about 30 seconds, just enough to cover the foliage with a fine mist, and then shut off. Make your cuttings the normal way. A 4-inch high cutting is adequate, with one set of leaves. Sometimes I crowd so many seedlings together, I can't leave on that terminal leaf, so I snip off the end leaf. That leaves my cutting with four leaflets and one bud eye, and about two to three inches of stem beneath the soil level. And that will produce a new variety for you next year. I usually take my cuttings during October and grow them under fluorescent lights during the winter. By the spring the bushes are 1½ feet high. They could be higher, but that is as high as my light stand will allow. I use a coarse mixture of perlite and vermiculite - 1/3 perlite and 2/3 vermiculite. The moisture on the foliage will stimulate growth at the bottom and the roots will grow much quicker in a coarser type medium.

I have not had a great deal of luck with budding until last year. A friend has made a wonderful series of slides on budding that will be available soon through the American Rose Society. He mentioned that it's best to do the budding when it is not going to rain. I was doing the opposite. After I inserted the bud, I would keep watering. Moisture was getting to the buds and I would lose 90%. Now that I do not water after budding, I have 90% take. So that was the key for me and it might be for you: do not water after you have made the bud graft.

BREEDING HARDY ROSES ON THE CANADIAN PRAIRIES

Lynn Collicutt - Canada

Prairie rose breeders were few in number, but willingly exchanged notes and plant material. In 1927 a rose breeding program was initiated at Morden Research Station, and is still supported by Agriculture Canada.

The prairie region was and still is difficult for growing roses, due to the low temperatures in fall and winter, spring frosts, and hot, dry summers. Precipitation is not abundant and supplemental water is often required for a good show of bloom.

The early prairie settlers found four wild roses, namely *Rosa acicularis*, the Arctic or Prickly Rose, *R. arkansana*, the Low Prairie Rose or Prairie Wild Rose, *R. blanda*, also called the Hudson's Bay Rose, Smooth Rose or Labrador Rose, and *R. woodsii*, the Wood's Rose. They range from low shrubs to large bushes, generally with single pinkish flowers, fragrant and quite showy.

For many years, the need for shelter belts and hardy fruit stocks dominated the breeders' minds, but gradually they turned to the prairie roses. Earliest in this field was Dr. Frank Skinner. The introductions from his Dropmore Nursery totalled 20, between 1925 and 1964. Next came William Godfrey, followed by Bert Harp and Dr. Henry Marshall. The latter introduced seven cultivars, which are collectively known as the Parkland Rose Series. Other outstanding prairie "rose men" were Percy Wright, Robert Simonet and George Bugnet.

Rosa acicularis is a species which grows up, to the Arctic and is very hardy. It has had limited use in breeding. It is a low bushy plant, one to three feet (30-100 cm) high, growing in thickets, woods, rock outcropping and clearings throughout the prairies, except in the very extreme north. The cultivars 'Will Alderman', 'Wasagaming' and 'George Will' were developed from a *Rosa acicularis* x *R. rugosa* hybrid, crossed with a garden rose. 'Will Alderman' and 'George Will' are still available in the nursery trade. 'Therese Bugnet', which was developed by George Bugnet, has *R. acicularis* in its parentage.

Rosa blanda is a mainly thornless, pink flowered rose, 2 to 4 feet (60-120 cm) high. It is native from Newfoundland right through to Manitoba and is found in thickets, woods, and along shorelines. This species has been used in the development of a few hardy roses. Dr. Skinner crossed it with a hybrid perpetual to get 'Betty Bland', introduced in 1925. He was not able to carry this further, but Percy Wright introduced a few plants which had 'Betty Bland' in their background, as does 'Therese Bugnet'. Notes from the Morden Research Station reported seedlings of *R. blanda* had smooth stems, good hardiness and fairly upright form. However, they seemed to be susceptible to what they call "cane blight".

Rosa woodsii is about 6 feet (2 m) high with straight or slightly curved prickles. It's very common on the prairies in thickets and in clearings. Although very similar to *R. blanda*, it appears not to have been used in prairie rose breeding.

Rosa arkansana is a low shrub, 18 ins. (45 cm) high, with dense prickly stems. It grows along the roadsides in well drained areas. It persists in fields even after the land is broken. The pink flowers are borne in terminal clusters. It was used by Godfrey and Harp at Morden, but it wasn't until Henry Marshall took over that its full potential was utilized.

The rose breeders on the prairies began to look for other species to use for hardiness in addition to the native species. These included *R. chinensis*, *damscena*, *gallica*, *foliolosa*, *laxa*, *nitida*, *primula*, *rugosa*, *spinosissima*, *altaica*, and *virginiana*.

Rosa rugosa is in the parentage of the most well known hardy large shrubs. Dr. Skinner first used *rugosa* in 1907 or 1908, when he crossed it with some of the native roses. He used pollen from Mme. Norbert Levavasseur, and obtained three seedlings, one of which was identical with the cultivar 'F.J. Grootendorst'. He found *R. rugosa* a useful parent. His first hybrid was 'Polyana', released in 1925. It was sterile and had pink flowers. In 1932, 'John McNabb' was released. It had pink flowers and was recurrent in summer bloom.

Dr. Marshall took over the breeding program at Morden and also used *R. rugosa*. He developed two hybrids between *R. arkansana* x *R. rugosa*, which were released as germ plasm RSM K1 and K5. The hybrids exhibited the rough foliage of *rugosa* and were vigorous plants with dark purple flowers. Examination of meiosis confirmed a tetraploid count of 28 chromosomes. This suggests that they arose from ovules with the 2n complement of *R. rugosa*. Both are fertile. One would expect these hybrids to be very useful in breeding, but we found the 1st, 2nd, and 3rd generation seedlings are hardy, large shrubs, which suprisingly have shown a susceptibility to blackspot.

In 1940 Dr. Skinner began to think that he had gone as far as he could in breeding hardy roses for the prairies. But, on a visit to the US Department of Agriculture Station in Minnesota, he saw *Rosa laxa*. He crossed it with *R. spinosissima*, but didn't get any plants worth naming. He carried these through to the second generation, however, and found some improvement in the seedlings. One of these he named 'Suzanne' in 1950. It had pink double flowers and repeat blooming. When 'Suzanne' was crossed with hybrid tea cultivars, everblooming seedlings were obtained in the first generation. During the 1960s, he made many new combinations with hybrids of *R. laxa*, using *R. chinensis*, *R. gallica*, and hybrid teas. Robert Simonet successfully crossed *R. laxa* with hybrid teas and tea roses to develop hardy shrub roses. *Rosa laxa* hybrids usually require several years to reach flowering, and thus they take longer to select.

Percy Wright used *Rosa spinosissima* in the development of 'Hazeldean', the best hardy yellow rose for the prairies. Unfortunately, it's very difficult to propagate and almost impossible to obtain.

Rose breeding has been carried on at Morden Research Station for 58 years. The first of the Morden rose introductions were developed by the late William Godfrey: 'Prairie Sailor' in 1946, 'Prairie Wren', and 'Prairie Youth'. Then Bert Harp introduced 'Prairie Maid', 'Prairie Charm' and 'Prairie Dawn'. Presently, only 'Prairie Dawn' is available from nurseries. In 1967, 'Metis' was introduced. It's a *R. nitida* cross with 'Therese Bugnet'. It is dense, finely branched shrub, about 3 feet high, with double pink flowers in July. It is resistant to blackspot and has shiny foliage which turns red in the autumn.

Dr. Marshall introduced seven rose cultivars from 1962 to 1980. These cultivars are collectively known as the Parkland Rose series, and they include 'Assiniboine', 'Cuthbert Grant', 'Adelaide Hoodless', 'Morden Amorette', 'Morden Ruby', 'Morden Cardinette' and 'Morden Centennial'. The Parkland Roses repeat more freely than shrub roses. They are winter hardy to a satisfactory degree. Some kill-back is usual, as in their parent *R. arkansana*, but the roots remain healthy. The growth from the base is rapid and the new stems produce flowers from June through to September, so it doesn't matter if they do die back to a certain degree. The Parkland Roses are on their own roots and they root well from greenwood cuttings under mist. The selection for rooting ability has been an important part of the breeding programme. Winter kill and profuse suckering because of injury are serious problems on the prairies. Because the Parkland Roses can be propagated on their own roots, the suckering is no longer a problem. Like their wild ancestors, they usually have seven or more leaflets. Sometimes people will confuse this with rootstock suckers, as in the case of Hybrid Tea and other tender roses.

The first introduction, 'Assiniboine', was a first generation seedling of a red form of *Rosa arkansana* crossed with 'Donald Prior', a floribunda. *R. arkansana* was selected as a male parent for three reasons; it is native and well adapted to local conditions, it has the tetraploid, 28 chromosomes possessed by most hybrid tea and floribunda roses, and it is one of the few hardy species able to flower on new growth, developed near or below ground level. It has reddish blooms, formed singly on the old wood, or in clusters on the new growth. These are borne in July and occasionally throughout the summer, on a plant about 3½ feet high.

'Cuthbert Grant' has large dark red blossoms, borne in clusters of three to six on new wood in July and late summer. The shrub grows about three feet high. It was chosen by the Western Canadian Society for Horticulture as the Manitoba Centennial rose for 1970. 'Adelaide Hoodless' was introduced in 1973. The plant is very floriferous and produces large clusters of up to 35 blooms of semi-double red flowers. It is fertile as both a seed and pollen parent.

'Morden Amorette' was introduced in 1977 and is a small everblooming shrub, of about 1½ feet. Flowers are carmine to rose bengal.

'Morden Ruby' is a vigorous shrub to about 3 feet, with double ruby red flowers.

Another dwarf cultivar is 'Morden Cardinette', which was introduced in 1980, grows to about 2 feet and the flowers are borne singly or in clusters. They are cupped and cardinal red.

'Morden Centennial' includes *Rosa laxa* in its parentage through 'Prairie Princess', one of Griffith Buck's introductions. It is a very vigorous shrub, growing to about 3 or 4 feet, with pink flowers that are produced on new and old wood.

Although in an isolated and unforgiving climate, in some respects, the challenge of breeding hardy roses has lead to many trials and a few successes. As Bert Harp wrote: "Rose breeding is almost purely empirical. We flounder and grope about in the darkness with but a dim ray of scientific light to guide us. We work with patience and perseverance, always hoping for the best."

HYBRIDIZERS' PANEL

Moderator: Keith Laver

Panel: Jack Christensen

Harmon Saville

Ernest Williams

Sam McGredy

Dr. Felicitas Svejda

Ralph Moore

William Warriner

Moderator: Each panelist will give a brief summary of what they are doing and where they think they are going. Then we will entertain questions.

Jack Christensen: With the purchase of Armstrong Roses, by Moët Hennesy, the champagne company, Henri Delbard, President of Delbard Nurseries, was appointed Chairman of the Board. We have our own independent leadership in the company, consisting of four vice-presidents, who work under Henri Delbard in operating the day to day business of the company. My particular work is the development of new roses.

In our breeding program, our primary emphasis has been and is hybrid teas, although we are branching, in smaller ways, towards miniatures, shrubs, and other types of roses. We are very interested in novelty types, anything different or unusual. We are working with stripes and, as Sean McCann has said, we are in somewhat of a race with others here. Ralph Moore was the originator of stripes in roses. As others we are always trying to get better reds and better yellows, etc. We are trying to get hardiness into the hybrid teas, although it is difficult to test for hardiness in southern California and to know exactly what selections to make.

Sam McGredy: Jack said he is into stripes - and it's a very odd thing that just at the same time, I got into stripes too, not having talked to Jack about it at all. Like him, I owe my interest in stripes to the preliminary work of Ralph Moore, with his 'Stars and Stripes'. I'm pretty far down that line and I'm trying to get stripes into hybrid teas. Everybody tries to raise hybrid teas because they are the most popular side of the market. I get a lot of seed on one particular parent, 'Freude' by Kordes. In some areas it can be a climber, because it is so darn vigorous! But I like the vigour in it, and with our long hybridizing season in New Zealand, I can ripen the seed on it. I use it extensively to get large size into my hybrid teas.

Going back to Ralph's miniatures, I started off with one called 'New Penny'. I appreciated its floriferousness and it has been extremely kind to me. I have raised quite a few roses from it. Pretty far down the line, I raised a pink floribunda called 'Sea Spray'. That turned out to be a very nice parent, and gave me a rose called 'Sexy REXY'. 'Sexy REXY' to me is just about the ultimate in the floribunda strain. Gene Boerner really invented the floribunda by taking the old polyanthas and putting form into them; he put decent flowers on top of a free flowering plant. But over the years, I feel we have lost the floriferousness of floribundas. They have very nice form now, but they are not as free as they might be. By going back to Ralph's minis, and bringing that up through the breeding strain, I have floribundas like 'Sexy REXY' with very large trusses of bloom and beautiful shape.

Of course, I'm probably better known for "hand painted" roses. People keep asking me what comes next. I wish I could answer that. Herb Swim once said that sometimes the guy that makes the break has to be content with that, and somebody else takes the ball and runs with it. And while I'm still trying hard with "hand painted roses", Pat Dickson and Pernille Poulsen seem to be getting on a little faster than me.

Ralph Moore: I guess I have been a dreamer for many years and you dream about what is possible; sometimes it takes a lot longer to make these dreams come true. Stripes came about, like many breaks do, by accident. I had a lady spreading pollen and she wanted to know if it was alright to use some from 'Ferdinand Bouchard', a striped hybrid perpetual. We put it on 'Little Darling' and got 27 seedlings. Nine showed some degree of striping. Two were bush and the others were climbers. One climber became the pollen parent of 'Stars and Stripes'.

Another seedling of 'Ferdinand Bouchard' was crossed onto 'Fairy Moss' and gave a little miniature striped moss, which generally showed two petals striped and the rest red. We used a lot of its pollen and the result is the line Jack and we, and some others are using.

We found that yellow was difficult to combine with the stripes. It seems as though the striping is a modification of red. The red has to be overlaid on the yellow, and as the yellow fades you get white. 'Earthquake' was the first one that really showed the red - yellow striping. We put some of these on 'Dortmund', one of our best breeders. We got a 'Dortmund' x striped miniature cross and it is giving us some good reds, as well as stripes.

Another thing we are working on, is stable reds. I like a red rose that will stay red. If it fades, it must be to an acceptable pink, and then drop off. Most reds either burn or turn a horrible colour.

Another field I am exploring is tea rose x miniature crosses, with the idea that they might be worthwhile growing in mild climates, or in the greenhouse as potted plants. And more recently, bringing rugosas into the line, we have a rugosa hybrid which is not a miniature. It is the only one we know of, that is yellow and repeats from spring to frost. It is scheduled to go with Wayside Gardens in 1987.

Harmon Saville: I specialize in miniatures. Miniatures can reflect all classes of roses, only in miniature. We have climbers, ground covers, hybrid tea types, decoratives, and so on. There is a need for miniature single roses, hanging basket roses, ground covers, climbers, hybrid tea types, floribunda types, and more recently, we have been working with types that have an extreme number of blooms for pot forcing and the ability to sell them in bud and bloom at any time of the year. We have one strain, from one of Ralph's moss roses, that appears to be completely disease resistant. We are pretty far along that line, and we hope to have some, that we can claim have very strong disease resistance.

We are also fiddling around with wild colours. This year we introduced Frank Benardella's extremely dark crimson rose, 'Black Jade'. Due to come out soon is one of at least four different shades of brown, chocolate brown, cinnamon brown, tan and parchment. We have three or four shades of gray, from battleship gray to tattletale gray. So, there's a lot of exciting things coming along in the future. We are not trying to head in any one particular direction. We prefer to reflect the whole world of roses in miniature.

Dr. Svejda: We work primarily with improvement of winter hardiness. I am an institutional breeder, working for the Canadian government. We are not in the commercial field and we do not compete with commercial breeders. In Canada we have a problem with lack of winter hardiness. We also have very few roses which are blackspot resistant.

When we started this program about 25 years ago, our aim was to combine hardiness with the everblooming habit. At that time, we didn't know if there was any rose which was hardy and flowered repeatedly. But we found a few, mostly hybrid rugosas. We didn't expect to produce garden type roses when starting from scratch. Using species to introduce hardiness into garden roses, you get something that doesn't look like a species, but doesn't look like a garden rose either.

I thought the hybrid rugosas would be excellent as park roses, if we could improve them. They would also be useful for gardens, with a minimum of care. Later, I also found that they were highly resistant to blackspot. I am very much taken with the species. It is native to Japan, but very well adapted to our climatic conditions. Very few hybrids measure up to the species in robust health and hardiness. My aim was to produce hybrids which compared with the species. I have produced hybrids which have improved

flowering attributes, are more productive, more repeating and have double flowers, etc. Now I am working with tetraploid roses. We have introduced some climbers and a few shrub roses.

Hardiness is an ecological feature. You have to look at the relationship of the plant and climate. Therefore, in California or in the south of France, you cannot breed for winter hardiness. Ottawa is an excellent location because garden roses do survive under coverage, but only barely. At the Experimental Farm, we lose about 1/3 of the garden roses each winter, in spite of protection. Home gardeners are more successful because they plant them close to the foundation and there is some radiated heat from the house. Our roses are grown absolutely without protection from a very early age. As soon as they have developed 5 or 6 leaflets, we plant them in the field and let them grow one season and then through the winter. Those which do not survive, well, nature has helped me in selecting roses. We have test locations across the nation in different climatic zones.

Soon I will be retired and out of breeding, but I do hope that these ideas will be carried forward by other breeders.

We have something else which I am quite excited about. It goes back to the rugosa hybrids. Years ago, I got a strain of the species from Japan and I grew this along with several thousand other seedlings. That year we had a new sprayer and it was ineffective. As a consequence, mice and aphids were abundant in our fields damaging all except for these few seedlings. I kept some of them and we tested them for a few years, we we could publish about them. I have named that strain 'Rugosa Ottawa'. It is absolutely resistant to two-spotted spider mites and strawberry aphids. It is very rare to have plants that are insect resistant, but to be resistant to two different insect pests is exceptionally rare. I do hope this is going to be utilized. I know it will be difficult because they are diploids, but considering their importance, I wish everybody good luck in a program like that.

William Warriner: Roses of the future are right around the corner, of course. That's where the future is. I think we are all going to be astounded, not just by rose development, but by all agricultural development in the near future. Someone estimated that 40 percent of agricultural research is being spent on cell level biology. This is a big change from just a few years ago. The techniques of tissue culture, etc., are really growing by leaps and bounds. Celery is already being grown commercially using a technique called embryo genesis or synthetic seedlings. They develop embryos from somatic cells of the plant and tissues of the plant. In tissue culture labs they encapsulate them and use them as seedlings. This has only been done with a very few crops so far. There are efforts to develop a line of crops that are resistant to Roundup through recombinant DNA techniques. Roundup is a herbicide that is really devastating to foliage, so, if you have plants resistant to it, you can do a lot of easy gardening or farming. Protoplast fusions are right around the corner. We will be doing some hybridizing with the cells in the tissue culture lab at the cell level. At the moment, it is not being done in roses but some companies are thinking very seriously about it. I think that in ten years there will be roses coming on the market that were produced in somebody's lab.

Back to reality now. We have a very hungry sales department. They have a big appetite for lots of new roses. We breed all kinds of roses: greenhouse cut flowers, greenhouse pot plants, roses of all kinds. We, like Armstrongs, have concentrated on hybrid teas, because that's been our bread and butter. We have not forgotten the other lines. We are not working on striped roses, but we are doing a lot of other things. We just got into the miniature business a few years ago, and it has grown by astounding leaps and bounds. This year we doubled the size of the shade house, and it was already a pretty good size. We grow the miniatures in a different manner from Harm and Ralph and Ernie. Ours are a little bit older when we ship and sell them, and they are all sold as bare root plants. Some people have thought that they were budded. In fact, when we first did some test shipments of what we call 18 month old plants, that were grown in the field for a year and then dug and bare root shipped, we got comments that they didn't think miniatures should be budded. In reality these were own-root plants, but they had been grown in the field for a year. We dig them all in the winter and we store them in cold storage, like we do the others, and it seems to work very well.

We think there is a whole field of business to be had in pot plant varieties, both big and small. There are different markets for pot plants. The old style was very good for 6, 7, 8 inch pots, but it becomes a fairly high priced item on the shelf, but there is still a market for them. There is another market for the small, 4 inch type pots. This has been demonstrated very dramatically in Holland, in Alsmeer, where they are growing millions of them in one greenhouse, mechanized so that they are hardly ever touched by human hands.

Ernest Williams: I breed for brilliant roses. I'm located in Dallas, Texas, and we have a very long growing season. We have some very hot weather so we can grow plants rapidly. I do my hybridizing outdoors, which means I must catch the first three bloom cycles of the year.

In the brilliant roses, I like the formal or hybrid tea form. I also think that a hybridizer should have a well rounded program. I've enjoyed working with ground covers, using Ralph Moore's 'Red Cascade'. I have been able to recover some seedlings that show good promise. 'Pink Carpet' was the first introduction, followed by 'Royal Carpet'. The problem with 'Red Cascade' is that it is nearly sterile and germination is extremely difficult. It is a very good rose, but only a few crosses take and you get very few seeds, but it has been very rewarding.

I also like climbers. I have brought out several and several more are coming. I ran across a couple of crosses which gave red climbers and I have one for 1986. You can get a fairly predictable number of reds from this cross.

I also like single roses. We introduced our first one last year. We have one coming up, which is oriole red with a yellow eye, has five petals and lays out flat. It does close at night, but will reopen the next day.

A large proportion of my effort has been with lavenders and it was not easy to come by. Now, like many others, I can get a very predictable ratio of lavenders, and more recently, lavender tans. The first lavender tan came out May 1, 1985, and is known as 'Twilight Trail'. There was a little mixup in the name, but the correct name is not Twilight Zone, but 'Twilight Trail'.

QUESTIONS:

Q. How do you store pollen and why is it necessary?

Sam McGredy: It is necessary because we always seem to be short of a particular pollen. Jack Christensen agrees with me that the two greatest words in rose breeding are "I think". I think that keeping my pollen in a refrigerator is the way to do it. I keep the stamens on pieces of white paper, so that they are stacked one on top of the other. I don't normally use pollen much more than 2 or 3 days old. I think that it loses viability at something like 10% per day, but I have never personally tested that out. I have a reasonable amount of fresh pollen, but when I'm stuck I use stored pollen.

Bill Warriner: Like Sam, we always need more pollen than we have, so we put some away in refrigerators in the fall, at 29°F, and use that in the crossing next spring. We also had some at 0°F and used it in crossing. The 29°F pollen seemed to store from fall to spring very well. We got a lot of good seed from that group and we will probably continue to do that, just to get us off to a good start in the spring.

Ralph Moore: We store pollen for a very practical reason. We often use certain kinds which only bloom once in the year, species or species hybrids, climbers, etc. A good share of the yellow roses used today, which have resulted in roses like 'Yellow Jewel', 'Golden Angel', 'Rise n' Shine', owe their existence to Brownell's once-blooming climber 'Golden Glow'. We've used that for a parent for a number of years. If it blooms once in the spring, we can store that pollen and use it on a miniature or floribunda or whatever, later in the season. We often store pollen for up to six weeks in the refrigerator. We put it in baby food jars, then put that inside a plastic bag and seal it tightly with a rubber band. It is true that at the end of the season we often dump quite a lot of pollen, but at least we have it there in case we need it, and it makes possible crosses that we couldn't do otherwise. Sometimes you have so much blooming at one time that you can't use certain pollens.

Q. Bill mentioned there were brown miniatures coming and I have seen some brown larger roses. Do you have any brown large roses coming to market in the next couple of years?

Jack Christensen: we have some brown seedlings, but nothing far enough along to put on the market yet.

Ernie Williams: In 1983 I recovered a brown floribunda and I am investigating brown miniatures with it. It has good form, relatively good colour and is vigorous. I only have it on its own root. It sets seed with every pollen I have put on it.

Bill Warriner: We had a climber, semi-climber, big bush, whatever you want to call it, that's brown. It is more of a coffee-and-cream colour. We've had some debate within the company as to whether we should sell it or not. Our sales manager and I agree, so we are going to do it over the objections of the President. It will be available in 1987. We have not yet named it. I think it is a beautiful colour, it's quite fragrant and has a lot of flower on it. It does have the drawback of being a little winter tender, but then I have been told that all of my roses are.

We have another sweetheart greenhouse rose that is a little controversial. We got a lot of these funny colours. You either hate them or love them. We have named this one 'Topaz' and some of the florists are starting to go for it.

Sam McGredy: I have one on the market, that is known in some parts of the world as 'Color Break' and in other parts as 'Brown Velvet'. It is bred from 'Mary Sumner' and I would say that it's easier to get brown from 'Mary Sumner' than from any other variety I can think of. I have another one which won one of the top awards in New Zealand this year from the same strain. But mine are milk chocolate brown.

Q. How do you keep the bees away?

Ernie Williams: In my experience, if you remove the pollen from a bloom, the bees won't have anything to do with it.

Sam McGredy: If I found an isolated one in the glasshouse, I used to spray and kill it. Now, if it wants to help me, I let it go ahead.

Bill Warriner: We just ignore it. We probably have more errors made by our pollinating people than we have by the bees.

Q. What is the total number of seedlings you would grow for any given cross?

Sam McGredy: I make 7,000 crosses and get 5,000 seed pods. We get rather a large number of seeds per pod in New Zealand because of the favourable climate. I would raise between 50,000 and 100,00 seedlings. The most crosses I would ever make in a year on one thing would be 50 or 60.

Ralph Moore: The number of crosses depends on the season, since we do most work outdoors. If we are pursuing something new, we make enough [for an exploratory cross]. If it looks good, the next year we want 500 to 1,000 seeds. We plant the seeds in flats and as they come up and bloom, I mark them. We take out what we think are the best ones and the rest are destroyed. This year we planted well over 80,000 seeds and next year we will have over 100,000. To judge the potential of a cross, you need from 500 to 2,000 seedlings.

Jack Christensen: I arbitrarily allow one parent plant per cross, for each pollen that I put on the female. We hope to get at least 200 seeds per cross, but depending on the cross, that is not always the case. Our total seed popu-

lation every year is around 100,000. Out of those, we select no more than 1,000 in the first year of selection. We reduce them drastically after that to fewer than 10.

Ernie Williams: My crosses run from 1,000 to 3,000, using a lot of floribundas and a few grandifloras. I want the colours in my crosses. It is very easy to throw out the large ones and retain the small ones. I pot no more than 3% of my total germination.

Harm Saville: We have 60,000 to 80,000 seedlings germinate. When we first have an idea of a series of crosses that might be productive, we make exploratory crosses of 6 to 10 seed pods for each cross. When we decide that this is a good avenue to explore, we can have up to 20,000 seedlings of the same cross. We feel we have a better chance of finding the good ones out of a large population of seedlings of that cross. We throw out all but about 2,000 on the very first bloom. We try to pick the best of them and those get boiled down to maybe 20 introduceable ones.

Bill Warriner: We have about 100,000 rough and dirty seedlings. We select in our first round about 1,000, and that gets heavily reduced the second year in the field. They are all planted in the greenhouse on a bench and we make our selections right from the bench. We have about 150 varieties for parents.

If you are going to have a lot of roses to introduce, you have to have a lot of seeds to make the seedlings. As an amateur hybridizer, you don't have the pressure to come up with something every year, and you can have success with smaller numbers. But I would urge any of you who are hybridizing to concentrate on certain areas. Don't try to get all kinds of roses, like we must. Concentrate on something you particularly like and your numbers will pay off better.

Dr. Svejda: The most important thing is to select the female parent for fertility. If you have a good seed parent, you keep it and change the pollen parent. We make perhaps 60 or 70 crosses a year. Many are not successful. We store the pollen up to one year in the refrigerator. I used to plant as many as 300 seedlings from one cross and I found that very wasteful. Fifty or sixty gives me a good idea of what I can expect. I am able to predict hardiness in the seedlings and flowering to a fair extent. Disease resistance is something else. The combination of all the factors, including appearance, is like looking for a needle in a haystack. I do think that simultaneous selection for a combination of features is the most advanced approach, rather than selecting for one feature and then making another cross and hoping for another feature, etc. We grow around 800 rose seedlings each year. Out of those I keep about 24.

Q. Dr. Svejda said she was using rugosa as a strain at one time. Are any of the hybridizers using species for introducing disease resistance into their roses, particularly mildew and blackspot?

Sam McGredy: No, I am not. I am using species for plant characteristics, but not specifically for disease resistance. The best results in that field are coming from Reimer Kordes in West Germany.

Harm Saville: We are using species hybrids and seem to be making some good progress with them.

Bill Warriner: We are not using species directly. We are using the spotless thing from Dr. Peter Semeniuk of USDA. We are getting some seedlings from those, but we don't know if they are any good or not. Most of our mildew and blackspot efforts at the moment are through selections of our hybrids. We have a number of hybrids that are very, very resistant to mildew, and we are starting to outline a very extensive blackspot screening program, that will be introduced into our breeding work.

Jack Christensen: The answer for us also is no. We used *Rosa soulieana* in our breeding program a few years ago and got some very interesting shrubby results that seem also to have resistant qualities.

Ralph Moore: We have used *R. soulieana* in miniature crosses. They are mostly pale colours so far, but we get tremendous fragrance and quite a bit of disease resistance. We have used *R. bracteata*, but resistance to mildew was lost in succeeding generations. This year, for the first time, we are using *R. californica nana*. It came from my cousin's cabin, up in the High Sierras, at 5,000 feet elevation. The interesting thing is that it blooms constantly. We don't know what we will get out of it.

Q. Why do hybridizers persist in introducing varieties which are very susceptible to mildew?

Sam McGredy: I am going to pass this one to Jack, because who would want to be without 'Double Delight'?

Jack Christensen: At the risk of sounding brazen, and I don't really mean to, but perhaps as long as people are willing to buy them, we are willing to market them. And we have varieties which otherwise have excellent qualities, like 'Double Delight'.

Harm Saville: There is a business decision involved: if you have a good rose that has superb form, beautiful fragrance, excellent bush, good production and yet is somewhat susceptible to mildew, you say: they have fungicides that will take care of it. Maybe they will live with it.

Ralph Moore: One thing that is sometimes overlooked with regard to mildew and other disease resistance is that those may be regional problems. For example, a number of years ago, when Herb Swim was at Armstrong, we had a little, very bright red polyantha rose we wanted to put into the All-America trials. We didn't have any mildew trouble with it at our place. When he got it down there, he had a lot of mildew on it. At the other end of the spectrum, Dr. Walter Lammerts was at my place, saw some hybrid teas, and wanted to know how we kept them free of mildew. We never had

any problem with mildew but in southern California they did. Some places never see mildew on 'Red Cascade' and in other places you can't grow it without getting it white with mildew. We don't treat our seedlings, because we want to find out if anything is wrong with them. On the other hand, I do test varieties from other breeders and sometimes I can't keep these free of mildew, because they have been selected under a different situation. If a variety mildews in your own garden, try something else.

Ernie Williams: I am not in a mildew-prone area, but I have observed other areas as well, and the incidence of mildew is in direct ratio to the amount of nitrogen that is available to that plant. If you pour nitrogen on a plant you are more likely to have mildew on it, than if you grow that plant under normal recommended cultural practices.

Bill Warriner: One problem that nobody else has mentioned is that there are many strains of blackspot and there are at least five strains of mildew. This is one reason for regional differences. We have a variety we think is pretty clean, but in another area they have a different strain and it gets hit pretty hard. An example of that: we used a new fungicide in our greenhouse, that was very highly recommended by one of our pathologists, and the whole greenhouse turned white. He forgot to tell me that there was one strain it was not effective on, and we must have had that one strain.

Sam McGredy: I would treat mildew and blackspot very differently because I think blackspot is very much more disfiguring and disastrous than mildew. I don't spray my seedlings in the field at all against either. By the end of the year, all but 20 or 30% would have had some kind of mildew. All of them, every darn one, will have blackspot of some kind or another. Most of them, without spray, will be defoliated.

Q. I grow roses in Alberta, Canada, and I consistently find that varieties originating in Germany come through a bad winter with a lot more vigor, than varieties originating in North America. I also notice that these varieties seem to have very little insect and disease problem. Why isn't there a co-operative effort after a rose has been out a number of years, to give it a hardiness rating? A lot of money is squandered in Canada and the northern United States on roses that aren't hardy.

Keith Laver: I think your question should be directed to rose societies rather than breeders, because once a rose is disseminated around the world, it is pretty hard for the breeder to keep an accurate watch on its hardiness.

Bill Warriner: Except in extreme cases of hardiness or tenderness, it is very difficult to classify. We made a personal survey of over 100 customers of our variety 'Simplicity' to try to do just that. People within a few miles of each other gave us completely different answers. Hardiness is not just how well it stands the cold, but how well it has been taken care of as it goes into the winter.

Q. I want to ask about 'Julia's Rose'.

Sam McGredy: The variety was raised by Bill Tysterman of the Wisbech Plant Company of England. In Baden Baden two years ago, it won the top award. It is a very striking brown hybrid tea. All roses have weaknesses. I'm not decrying it, but sometimes it is not as vigorous or hardy as it might be. It's a different colour brown to the tan that Bill Warriner has, or the chocolate that I have. It's quite distinct. To me, it is a very obvious down-the-line derivative of 'Grey Pearl'.

Q. To what extent does the lack of breeder's rights legislation inhibit the introduction of new varieties from other countries into Canada?

Sam McGredy: I am sad that Canada does not have plant protection, because we are all commercial rose breeders, and while we love roses, we have to make money. I can't understand why Canadians think so little of their plant breeders, and I am thinking of agricultural breeders more than ornamental breeders. I saw what happened in New Zealand, where they brought in patent legislation just about the time that I went to live there. There is no question that it has stimulated all kinds of plant breeding.

Q. As a grower of roses and especially new roses, I have a question for Mr. Warriner. Why do some of the new varieties from his company peter out after a few years? Specifically, 'French Lace'. After four years, it doesn't seem to send out new growth. Yet roses like 'Evening Star' or 'Sunflare' show more vigor every year.

Bill Warriner: There are a lot of things that can cause it. Nematodes will do that to a plant.

Sam McGredy: I know 'French Lace', but I have never grown it. But I can think of other varieties like 'Die Welt' and 'Apricot Prince'. There are too many varieties that appear on the market and then it is discovered that they do well for a few years and then go downhill. I think it is in the variety.

Q. Miniatures will grow on their own roots. Hybrid teas are all budded on understock. Why is there no effort to sell hybrid teas on their own roots?

Bill Warriner: Own rooting is one of the selection criteria for miniatures, but not for hybrid teas. It might be possible to select hybrid teas and floribundas to grow on their own roots. We went through an experiment a few years ago, planting everything on its own roots and only half of them grew. We didn't extend the experiment.

It isn't enough to ask intelligent questions: you have to listen intelligently to the answers.

INTRODUCTION OF NEW ROSES

Steve Hutton - USA

I'm here to tell you about how easy it is to introduce new roses. Conard Pyle is historically a rose nursery. It has been so for 88 years and will continue to be so for the remainder of our existence. We also diversify a bit with general nursery crops, mostly in containers. We have been involved in the evaluation, selection and introduction of new rose varieties for virtually all of our existence, and have had some very fruitful relationships with breeders around the world: Americans, Canadians, and Europeans. We are not a rose breeding firm. Our basic philosophy is that we are willing to work with any breeder in any part of the world and accept their varieties on a test basis. Then the varieties from the various breeders compete with each other in our nursery to see which are the best ones. They are not competing with our varieties, because we don't have any. From time to time over the years, we have bred some roses. In the '30s and in the late '50s and '60s we had an active breeding program, then got out of it. Then in the late '70s when we felt there was a crying need for shrub type, very hardy, ever-blooming, disease resistant roses, we again reinstated the rose breeding program. But now, we seem to be getting a good number of very high quality roses to test in that area, so we are not breeders any more, and very happy to be that way.

In the selection process, once the variety is created, you have to go through steps, as you would do, if you were growing and selling the plant. We prepare the land in Westgrove, Pennsylvania. It has nothing to do with how they grow roses in California or Arizona. It's a little more of the Texas style, but very much on the European style. It's not irrigated. You plant seedlings, you bud the seedlings, etc. etc.

We use a selection of canina seed that's a lot less finicky and less prone to some of the problems that multiflora is heir to. Double rows of seeds are planted out in the spring. We let them grow one season and then the seedlings are dug in the fall. We grade them and plant them the next spring. We bud two months after planting. And presto, a year later, you've got a field of roses to look at.

We at Conard Pyle, do a lot of testing for breeders such as the De Ruiter, Meiland and Poulsen families. From time to time we do test for some British breeders or Ernie Williams or Herb Swim and Ollie Weeks. We introduced a number of their AARS award winners. We've worked with various amateurs who think they have something special and send it to us. We are very happy to look at those. We've even seen some very fine "minis" from your own Keith Laver, here. We look at four different product lines, or members of the rose family, when testing roses at Conard Pyle. Of course, the first thing that comes to mind is the conventional type of garden rose - the hybrid tea, floribunda, grandiflora, climber, etc. Then we have landscape roses, of the type described by David Gilad. Another line is pot-forcing roses. And lastly, under-glass roses, which really doesn't concern too many of us present here. Each member of the rose family has its own set of criteria by which varieties need to be judged. They have to be looked

at, in their own context. Obviously, if you are looking for an under-glass variety, that's where you have to grow it, and likewise with a garden variety (in the open).

For under-glass, the selection must have excellent bud form, excellent flower form, good keeping ability. An under-glass rose is really almost an industrial item, in that the grower has a factory and his factory produces cut blooms. So obviously, no matter what else, if you only get three blooms a year, the rose grower isn't going to go near that variety. Also, unlike the other types of roses, promotion is very limited in its effect, for cut roses. First of all, you can't promote them to the ultimate consumer because none of us has that kind of money, and promoting them to the grower is fairly meaningless. He's going to make a decision based on the variety's technical merits. You can't hype a rose to a grower.

Pot-forcing roses are similar. If you go into a supermarket you see foliage plants, 'mums, etc. A pot-forcing rose is the same thing. It's basically a miniature or dwarf, 'Mother's Day' Koster type of rose, grown for its flowering effect as a pot plant. It's not grown for bud form, although that is sometimes important. It's not grown for flower form: it's grown for its ability to produce lots of color over a fairly long time. It's also important that it be own-root. If you've got something that fits all the other criteria, but you can't root it, then you throw it out. The idea is, that the consumer treat this plant just like a pot 'mum. You enjoy it for two or three weeks in your house, and then out the window with it! You start again by buying another one. I will probably offend some people in this room, but I like the idea (of disposable plants).

The Meillands are not the only people producing shrub roses. In fact, any rose breeder of any size in the world, who is breeding a full line of roses, is working with the shrub types. We all have basically the same criteria, the same goals, the same market. Right now the race is on. Obviously, the roses have to be disease resistant. For people who live in Canada, we don't have to say that they have to be hardy. We can tolerate some die-back as long as there is three or four inches of cane, or a nice healthy crown left, the following spring. Again, for Conard Pyle's purposes and for Meiland's purposes, they have to be own-root. We want a plant like a cotoneaster, which is grown by the millions and millions. These roses do everything a cotoneaster would do, except that they bloom and rebloom and keep blooming. Then in the winter, they have nice hips. Picture the scale on which cotoneaster or weigelia are grown and realize that they flower once a year, are kind of ratty and are not worth waiting for the flower. Then picture a plant that is grown in those quantities but has the one very important characteristic, that it flowers and keeps flowering. I think the market for this kind of thing gets your attention, if you are in the rose introduction business.

That brings us to the fourth type of roses, the conventional hybrid teas, bedding roses, floribundas, grandifloras, etc. These are a slightly different kind of plant, from the selection standpoint and from the introduction standpoint. First of all, they are heavily promoted. They are very

heavily tested and there's already a lot of existing competition from good varieties that have come before, and form a yardstick against what is currently to be introduced, is measured. This is a long drawn-out process. In the first year we receive our budwood from various breeders from around the world. The first year we bud it and you don't see anything. The second year, we will cut back the understock and we will see the first series of bloom, and from that we will make initial selections. Those we will bud to give us 60 or 70 plants of each variety, to give us a basis for making an interim decision. The third year we will see those 60 or 70 plants. We may say "why did we waste the understock on that?" or "why didn't we bud at least 500 of that?" In the third year, we will make a decision as to whether it's an All-America Rose Selection-type rose. The All-America Rose Selection is a very stringent testing programme, where roses are tested for a two-year period in virtually every climatic area, so that the rose industry, with the aid of its judges, can introduce what are the most prominent rose varieties, that have done well in all parts of the country. It takes an awful burden off the consumers' shoulders. Instead of having the twenty or thirty varieties that would come out every year, if we were introducing them without this testing program, we are now down to two to four per year. In some years there are not even any varieties. But these have had a stamp of approval which says "OK, your chance of succeeding with this rose is excellent. If you are only going to buy two or three roses this year, here's where to start." In the fourth year, we would bud roughly 1,000 plants, which is enough to enter the variety in the All-America Selections. They would grow the next year. We would dig them and enter them two years later. (That's up to six years already.) Then they are tested for two years, and at the end of that time, a decision is made by the Board of AARS, and budding would be done the following spring. So, it's tough to do it in much less than eight or nine years, and, it could easily go another year or two beyond that, if you are kind of sitting on the fence. And, at the end of all that, we as a firm enter four to eight varieties a year. And if, every other year, one of those has received an award, we are more than happy.

It's a long and tedious process, but it's done for you. It's part of the cost of research and development. It's part of the reason why there are not a lot more of us doing this, instead of just a handful of firms. But it's a valuable service, and it's a service which we are happy to perform, because we think it is the lifeblood of the rose industry.

TESTING FOR ALL-AMERICA WINNERS

Fred Edmunds - USA

Testing in the United States started around World War I. Most of the test gardens were connected with rose companies that introduced roses, like Conard Pyle and Jackson & Perkins. There was a freelance garden in Massachusetts and in Portland, Oregon. That left a lot of holes across the country, and the testing didn't tell you much. After World War I, the American Rose Society tried to organize a set of test gardens. But it was very difficult, because there was no plant patent protection. Most of these test gardens had

high fences around them, to protect the budwood from being stolen. Many potential winning varieties were not entered in the test gardens for fear of losing budwood. When we got plant patents in 1935, the fences came down and we could put in all the varieties and test them decently. It was beyond the scope of the American Rose Society to do this. A group of nurserymen, most of them members of the American Nurserymen's Association banded together and formed the All-America Rose Selections Committee in 1937 or 1938. They had to make sure that every major market area had at least one test garden, that almost all the roses eventually introduced were tested, and each year they had to select those cultivars which were worthy of an award. It meant that no matter where you lived in the United States, if you bought an All-America Rose Selection variety, chances were it would do very well in your garden.

People complain that All-America Rose Selections are not necessarily rose show winners. But, there are 3,000,000 rose customers each year and the American Rose Society has only 20,000 members. So, it's a very tiny voice in the United States. The All-America Selections are aimed at a market that has other interests besides growing roses (for showing). Growers want to sell them half a dozen plants that are easy to care for, that bloom consistently, have a certain amount of fragrance, and have a bright color. Roughly 48,000,000 roses are grown in the United States each year and members of the All-America Selections Committee grow about 95% of them. We are mostly interested in the *marketing* of roses. If a rose is not going to sell and is not going to remain on the market for a period of time, then why bother giving it an award?

Currently there are twenty-one test gardens, scattered over the United States. There are fifteen judging schedules. About half of them concern the bloom, its form, its color, the shape of the bud, the half open bloom, the fully open bloom, the color in all these three stages, and whether it is pleasing to the eye. There is also an item to judge the uniqueness of a rose, and indeed, whether this makes it more valuable. There is also a classification called "personal preference".

At one time we divided all our roses into groups; climbers, shrubs, hybrid teas, grandifloras, floribundas and miniatures. But very recently we have decided to divide them into just three groups. One is climbers, those requiring support. One is groundcovers, those that are going to spread. And then, the rest, be it a floribunda, a hybrid tea or a grandiflora. The hybridizing system has inter-mingled all of these last three groups so tightly that sometimes it is almost impossible to tell how they will perform in the various climatic areas of the United States.

I didn't think much of the idea when it was proposed. It was like having children, waiting until they were twenty-one, and then asking the neighbours to tell you what sex they were. But now I see the reasoning behind this. I remember 'Pink Favorite' and 'Fragrant Cloud' which, if not disbudded, came at least five to a stem. They were almost cluster-type flowers, but were called hybrid teas because of the gigantic flower size. So, there might be less shading of difference between grandiflora, floribunda and hybrid tea than there has been in the past.

There are twenty-one members of the All-America Rose Selections at the present time. Most of our judges are not connected with the nursery business. They are academics like Dr. Griffith Buck, Professor at Iowa State University, or connected with rose research institutions or public gardens. Judges connected with nurseries have their scores removed from classes that contain their firm's introductions.

The All-Americas have produced a number of really great roses 'Peace', 'Queen Elizabeth', 'Chrysler Imperial', 'Tropicana'. People still grow them. We try to come up with something in keeping with the gardeners' needs and we constantly change our scoring schedule to reflect what we think the buying public really wants. At the present time, disease resistance is very important. We find that people are more interested in disease resistance than in fragrance. They like bright, flashy colors, floriferousness and they don't want to spray them very often. There are a lot of other things vying for the attention of the average gardener, besides growing roses.

Several years ago we stopped announcing our winners early in June. Newspapers would advertize the winners and the public wanted to buy them immediately, but they weren't available for sale. So, now we announce our winners early in September. However, all these winners are planted in the various test and demonstration gardens in the United States and they indicate the 1986 winners, names to be announced in September. (This year will be the first time that All-America Selections has picked three hybrid teas.) When an All-America Rose goes on the market, every nursery and garden centre can have it available, when the local media announce the winners for this year. One individual nursery can't lock up the supply.

Some very fine varieties do not win All-America Selections awards. I can point to 'Fragrant Cloud'. The firm that originally held the patent on 'Fragrant Cloud' also had the patent on 'Tropicana'. They chose not to enter it in All-America Selections trials for fear that they might befuddle the American rose-buying public, because they already had one orange rose on the market. If a rose does not meet the marketing strategy of an introducing firm, it is not placed in the All-America Rose Selections. Sometimes plants fail to go through the patenting process, because a rose hybridized and introduced in Europe has to be patented in the United States, by the time it is introduced here. Occasionally, a variety misses being patented, because the plants or the budwood sent from overseas died or were the wrong variety. And once in a while, we miss out on a great variety like 'Esmeralda'.

Questions:

1. Why are rose names changed? Why is 'Tropicana' called 'Superstar' everywhere else in the world?

The introducing firm felt that the name 'Tropicana' would sell better than 'Superstar'. If they buy the patent or are the sole agent, they have the right, under the rules of international horticulture to introduce a commercial synonym.

2. Why if they are supposed to be kept secret, are the award winners shown in the Nurserymen's magazine?

The nurseryman buys today for delivery next January. But the average rose customer wants to buy the rose as soon as he reads about it.

3. Why is there so much virus in the rose bushes we are buying?

You can have a virus indexed block of understock and a virus indexed block of scion, and you bud them and put them out in the field and hold the individual block for a few years and suddenly the virus indexing vanishes. They have not yet discovered the vector of the virus. It's not just root grafting, because it can come into an isolated block and infect the block.

4. Can the virus be transferred from one plant to the other through the air?

No. The only way you can transfer it is by budding or by taking an infected cutting, and putting a clean bud onto it.

5. There seems to be more mosaic today. Is it spread by aphids?

In the laboratory, they have never been able to find a vector that can transfer rose mosaic from one plant to another, except in the budwood or the scion wood. Mosaic is noticeable only at temperatures below 80 degrees F. It becomes masked on the first day the temperature goes over 80 degrees. And, since most roses are grown in very warm climates, we never see the problem.

TESTING OF NEW ROSE VARIETIES

Josef Sieber - West Germany

Every year ten thousand new rose varieties are grown by the large companies that breed roses. It's very fortunate that the rose breeders select the best of their rose varieties, so that from these ten thousand varieties, we are left with approximately five to ten kinds. For the rose fans, of course, it is very fortunate that these rose breeders are willing and prepared to present their three to five selected rose varieties to neutral authorities, who will judge them in rose trials.

These rose trials, which are carried on all over the world, differ from each other in their methods. In one garden, for instance, the greatest emphasis is placed on winter hardiness or frost resistance. This is the case where shrub roses are growing. They freeze down to the soil, if their resistance doesn't suffice. We have seen the pictures presented by Mr. Balfour and the use of climbing roses in Genoa. Of course, you don't have these hardiness problems in that special climate. In some rose gardens, special value is placed on the fragrance of roses, and there are other gardens, including our garden near Munich, where special emphasis is placed on disease resistance.

Table 1 lists the various items in the ADR* tests for trials; is a table for hybrid teas.

The various testing methods, in different countries and cities, differ so much from each other, that they really should be a little more co-ordinated.

*ADR: Anerkannte Deutsche Rose = Approved German Rose (approved by All-German Rose Trials)

I have worked for over 20 years on this problem, and I still haven't succeeded in uniting rose fans and friends to come to some co-ordination in the rose trial system. Of course, I don't want to superimpose the ADR method on others. However, I have worked out a compromise method, shown in Table 2. Since in test gardens, there is a permanent jury, as well as an international jury, with different tasks and goals, we have to find a common factor for both of them.

In ADR tests, we have forbidden the treatment of the roses with fungicides. What is the use of the most beautiful rose, if it loses its foliage by August, or is marked by blackspot? What is the use of the most beautiful rose if you have to show up once a week and spray that rose? We friends of roses want healthy roses. Our roses are not to be sprayed with fungicide or any other remedy for the diseases blackspot or mildew. We just wait and see which one is healthy and which one is not.

In ADR testing since 1958, 1033 roses were tested and 135 made it. The others were discarded. For instance, the rose variety 'Olala', which was introduced in 1956 by Oos, I have planted in my garden, after having looked for 20 years for that variety I didn't have to spray. This rose remains healthy. Other varieties are 'Lilli Marlene', 'Iceberg', 'Fragrant Cloud', 'Lichtkonigin Lucia', (one of the best shrub roses we have), 'Freesia', (a floribunda), 'Westerland' (a hanging [climbing]) shrub rose which can also be used as a ground covering rose, 'Nika '82' (a low growing rose introduced in 1982).

One rose from Meilland doesn't have the ideal flower form, but it retained its full foliage, without being sprayed, until fall. The form of the flower is not really ideal, but it's a very healthy rose. We are convinced that if you enter a rose garden and you look around, you shouldn't just look for the beauty, but you should also look for health. And I refer to gardens where the roses are not sprayed frequently.

Table 1 - Point system used by ADR (German Rose Trials) in evaluation of hybrid tea roses.

1) Plant	10 points	Growth habit & vigour	10
2) Leaves - foliage	25 "	Quality and quantity	10
		Disease-resistance	15
3) Flowers	45 "	Richness of blossoms	15
		Fragrance/Scent	10
		Bud form & flower form	5
		Colour	10
		Resistance to weather damage	5
4) Novelty value	10 "		
5) Overall effect	10 "		
	<hr/> 100 points		<hr/> 100

Table 2 - Suggested point system for evaluation by the Permanent and International Jury

100 points for all criteria should be distributed as follows:

a) Permanent Jury: 75 points

Growth habit & vigour	10 points
Quality & Quantity of leaves	10 "
Disease resistance	15 "
Richness & Continuity of blossoms	15 "
Fragrance/Scent	10 "
Resistance to weather damage	5 "
Novelty value	10 "

b) International Jury: 25 points

Bud Form & Flower Form	5 "
Colour of Buds & Flowers	10 "
Overall Effect & Harmony	10 "

The rose blooms but a short time
 When her time is passed,
 It is not the rose you find
 but only thorns.

-Anonymous epigram from a
 Palatine Anthology.

(=Pick ye roses while ye may!)

DEMONSTRATIONS OF FLORAL DECORATION

Bernd Weigal - West Germany

Of all plants, which can be used on the greatest variety of occasions, the rose is especially suitable for decorative purposes, not only due to its noble form and the many colour variations, but also due to its scent. Relics from classical antiquity are proof of luxurious festivities where unbelievable amounts of roses were used.

However, they were first introduced into the castles and salons in the 18th century.

From this time horticulture gained particular importance due to the discovery of the richness of flora in Europe. The rose was particularly suitable for cultivation and it is not surprising that the desire of the growers increased to introduce their creations to a large audience on special occasions.

Large horticultural shows took place regularly in London, Paris, Nice, Genoa, Ghent and Hamburg - to mention but a few of the most important cities. A special impression was made by those horticultural shows, which regularly included an exhibition of roses in their programme in the month of July: rose-growers, florists, landscape-gardeners and horticultural authorities, in the individual cities, became competitive.

Whereas in the past only cut roses had been shown, the cultivation of roses in containers in recent years, has made the planting of whole garden areas possible in just a few hours. If we look at the latest rose shows - and here the great rose show in Paris in 1984, which is one of the most important of all, must be especially mentioned: - the container roses have taken a very special place. This not only applies to the border roses but especially the long-stemmed varieties, which through this third aspect, achieve a special three dimensional effect in a convincing form.

Rose shows are also held regularly in Baden-Baden. The container roses are mainly used here for planting roof-top gardens.

This leads to surprise effects for the visitors every time, as they usually do not know that roses in bloom can be planted in summer.

The principle of arrangements is of quite decisive importance for all kinds of decorative use of roses. Each arranger develops his own special handwriting, so that general rules are difficult to lay down.

The following principles are important to me:

1. Drafting of a total plan which sets points of emphasis in the different areas, so that the visitor to the exhibition continually experiences new surprises. Route planning is of importance.
2. Each room, which is easy to survey, is arranged as far as possible according to a concept; this can be:

- a) monochrome
 - b) two related colour-tones (tone in tone)
 - c) two contrasting colours
 - d) three tones
 - e) many colours (millefleur)
3. The corresponding plants to accompany the rose [companion plants] are to be chosen. In Baden-Baden we prefer shrubs.
 4. As a rule, roses are presented in vases; white porcelaine vases and glass-cylinders are especially suitable here.
 5. The individual bunches are presented on flat tables, on different levels, so that even new pictures are created.
 6. Special care must be taken that enough room is left between the bouquets. Overlapping is often disadvantageous, especially when taking photographs.
 7. The arrangement of individual bouquets should be left to a florist.
 8. As a rule, the roses have to stay fresh for 3 - 5 days. With high summer temperatures this is often hardly possible. Therefore, the provision of a suitable cooling system is of decisive importance, to ensure the success of a show.

(Some 30 colour slides were shown to illustrate the above points).

Adam by the Sea

After the ball,
 I walked with her,
 Where waves whisper
 and cry; wandered over
 sand dunes aimlessly;
 In her hand a wilting white rose.
 It was a night filled with stars
 A quiet night, filled with dreams.

Villier de l'Isle, 1839-1889

from: "Roses, Roses" - an anthology published
 by the Polish Rose Society

ROSE SHOWS AND EXHIBITIONS IN POLAND

Jadwiga Grabszewska - Poland

The rules for rose competitions are different in Poland from those in Canada. Awards are given not to the rose but to the exhibitors for their displays. There are three classes of exhibitors: national, municipal or co-operative nurseries, private nurseries, and amateurs with small gardens or lots. The rules for each class are different and the number of roses that must be exhibited is fixed. For example, the professional must exhibit thirty roses of each variety, while the amateur is required to display only five. During the exhibition each visitor votes for the best rose of the show. A simple majority of votes determines the Queen of the Show.

These shows usually last for four days, and the flowers are changed daily. Every year there is a National Exhibition in one of our biggest towns and also several local shows in smaller towns and villages, where their shows are sometimes held in the open air.

In 1965 the National Exhibition was organized in Gdansk, one of the most beautiful cities in Europe. It was held in the 15th century building "The Court of Arthus", where in the cellars, thick walls protected the flowers from the dry, hot July weather. Wroclaw, the biggest town in western Poland, was the location for our 1966 National Rose Exhibition. It is an important centre of industry and science, as well as of cultural life. The roses in Wroclaw were displayed in an old convent, with the beautiful background of 3rd century frescoes from Farras in the Sudan.

For the past twelve years, the national exhibitions have been organized in Warsaw, the capital of Poland. Completely destroyed during World War II, it is again a busy metropolis with about two million inhabitants. Its historical old city was rebuilt, brick by brick, from ruins, as was the royal castle. The most recent rose shows took place in the summer residence of the last king of Poland, where the roses fitted very well in the Sculpture Gallery. People wait in four-line queues for up to two hours to be admitted. The exhibition hall is beautiful but very small and there is only one door that leads inside. In spite of all these troubles, our rose friends, as those all over the world, are extremely happy to be able to visit this marvellous world of roses.

The prettiest compliment ever paid by man to woman: "Won't you come into the garden? I would like my roses to see you!"

- Sheridan.

LANDSCAPE PLANNING

Jacques Defever - Belgium

Every landscape carries the traces of men's past doing. The landscape is a three dimensional setting in which man works, lives, and finds recreation. In the past, the outlook of old villages and village greens was completely attuned to the surrounding landscape. Nowadays, it has become more and more clear, that a landscape which still contains elements from the past, has become modern without considerable intervention from the past. Those old village centres have grown and have been surrounded by town planning extensions.

The planner's theme is completely free in this respect. The past is mostly forgotten. The present is selected. The future is worked out in a one-sided way. Consequently, this has too often resulted in something experimental. In time, specific factors have turned into main factors and no consideration has been given to natural, simple human norms, or past or future. The noble and the beautiful are gradually disappearing. Therefore, we must ask ourselves if our plans will still be liveable, in the year 2000.

The landscape and the constrictive surroundings have to be fitted, and have to be a basic factor in every program of study; landscape planning "to be or not to be". It is this, which is really at stake. The environment only becomes real, when it is liveable and useable for every creature, characterized by a successful harmonious combination of every landscape element.

We need a capable type of human being, who is able and willing to bring the chaotic back into balance again. The balance, which can very easily be agreed upon, is related to different processes of evolution. The human condition is always in need of balance between artificial and natural surroundings. This is very up-to-date and typical of our present time, in which man is in search of himself, and finds himself looking unrecognizeably back. Insight, the coherence between man natural and the world, has to expand to hopeful confidence that man will find a way in body and mind, in the urban and rural cultural revolution. This realization demands a considerable amount of willpower, together with scientific and organizing power. The future is in the hands of the planner specialists, who, according to their knowledge and experience, contribute to the striving after the most natural, to human perfection.

The past, with all its experience and inheritance shall be likened to the present, as well to the near and remote future. Landscape planning, in fact, amounts to constructing a future for the generations to come. What is an engineer, an architect, a landscape architect? How is he educated? He has to be educated as broadly as possible. He has to have a solid practical base, in order to know the vegetation and hope to use it. He has to obtain basic knowledge in geology, ecology, and art, for, believe it or not, beauty is necessary in our world.

A VISIT TO BAGATELLE

Mando Bernard - France

On the edge of the Bois de Boulogne to the west of Paris, there once stood a charming house built circa 1725 by the Duc d'Estree, the obliging husband of a woman of somewhat easy virtue who hoped to win favour with the Regent, and later with Louis XV, through the glamorous receptions she gave there. The name Bagatelle appeared in 1736, signifying frivolity, triviality and love (la bagatelle). A small park, of about 9000 square metres, composed of two symmetrical flower beds and a few small groups of trees and bushes surrounded this modest country house. In 1775 it became the residence of the Comte de Chimay, a friend of the Comte d'Artois (the future Charles X) and a great lover of Anglo-Chinese and romantic gardens. These styles were quite fashionable at the time and contrasted with the more formal French gardens of the XVI (Renaissance) and XVII (Classic, Versailles) centuries.

In 1777, the Comte d'Artois purchased the property and enlarged it to ten hectares. As a result of a bet with his sister-in-law, Marie Antoinette, he had a chateau built in just sixty-four days. He had a romantic garden in the Anglo-Chinese style designed and laid out, with winding paths, numerous rock formations and landscaped grounds dotted with ornamental structures, to create a picturesque setting. To supervise this work, he engaged a Scottish gardener, Blackie. This man introduced the concept of isolated trees on open lawns, and also planted rare plants.

With the French Revolution in 1789, the property, formerly the scene of aristocratic diversion, became an amusement spot for the populace. The "folly" of bagatelle changed hands numerous times. In 1835 it was purchased by an Englishman living in Paris and remained in English hands until 1904. During that time the property was extended to its present twenty-four hectares. The grounds were transformed around 1854 by Vare, a landscape architect of the 19th century French school of landscaping, who was deeply inspired by English gardens. Streams, ornamental structures and rock formations were sacrificed as a result of these modifications. The garden lost its Anglo-Chinese appearance, but retained its unity and charm. A number of buildings were constructed: the Trianon, the out-buildings, the Orangery, and various other structures (fake ruins, grottos).

The City of Paris acquired the property in 1905 to save it from developers. The idea of a rose garden for Paris went back to 1880-1884, but it did not come into existence until 1905. Through the donations and the assistance of M. Gravereaux, who selected 1200 plants of the best varieties from the 12,000 plants in his rose garden at Roseraie de l'Hay, J.C.N. Forestier was able to design and implement the rose garden as early as 1906. It was mapped out on the site of the riding field, opposite the Orangery.

This formal rose garden was truly a showcase for roses, and by 1907 contained 129 different varieties. These rose plants came from those selected

at l'Hay and from donations from twenty-seven French and thirty-three foreign rosarians. Today, in 1985, the rose garden displays, in an area of one hectare, 6,500 roses representing 900 different varieties or species, of which 88 percent are so-called "modern" varieties. To this must be added the 200 varieties that are in the international competition for new roses. This competition, initiated by J.C.N. Forestier and Gravereaux, was established in 1907. It was a great success from the start and was, in fact, the first international rose competition. It remains a highly successful event which is held on the third Thursday of June each year.

The Rose Garden represents the rose in a great number of different forms; this diversity is the result of origin and variety, but also of human whim: stems, weeping roses, climbing roses on pergolas, pillars or chains, low bushes, shrubs or ground covers. The different roses have not been classified systematically by category, for here the vegetation forms an integral part of the garden's architecture.

Recent developments in the use of the rose plants stemming from the desire to brighten the urban landscape and its parks with large expanses of colourful and continuously blooming flowers, have prompted planners to research hardy plants which show good floral mass, fullness and floriferousness. Moreover, bacterial disease compels the city to seek replacement plants. The rose appears to be a plant capable of fulfilling these criteria. To tackle this situation head on and to stimulate research on varieties which meet the requirements, the City of Paris instituted a competition for so-called "landscape roses". The bushes will be observed for two years and then judged in their third year of growth. The competition will, therefore, take place for the first time in June, 1986.

The garden of Bagatelle also presents permanent collections the year round:

- 1,250,000 spring bulbs on eight hectares of lawn in March, April and May
- a garden of irises, displaying 350 varieties in the austere but spell-binding setting of the Hispano-Moorish garden
- a collection of climbing plants (Clematis, Wisteria, Lonicera...)
- a garden featuring seasonal spring and summer plants
- a perennial garden
- a collection of Pelargonias (geranium) and Fuchsia

A wise man will make more opportunities than he finds

- Francis Bacon

THE ROLE OF THE ROSERAIE DE L'HAY IN THE HISTORY OF THE ROSE

Daniel Jean - France

In 1892, M. Jules Gravereaux bought an estate of several hectares about ten kilometres south of Paris. This ardent rosarian planted the first roses here the following year and pursued his work until his death during World War I. By 1889, he had collected enough roses to place them in a special garden. He engaged the services of Edouard Andre, the distinguished landscape architect, who designed a charming rose garden, which was to grow rapidly, increase tenfold in size and become famous. Here, for the first time, was a pleasure garden composed entirely of roses: dwarf roses formed borders, roses grafted onto wild roses looked like trees, and climbing roses covered arches, garlands, pavilions, pillars, etc... This was a revelation, almost a revolution. Until then, while the rose itself was highly regarded, the rose bush was not thought of as a decorative shrub. It was rarely, if ever, planted in flower gardens, but along the paths in vegetable gardens, so that flowers could be cut for the house. In the Roseraie de l'Hay, the flowers decorated the garden; they were not for cutting.

In 1900, Jules Gravereaux published the first catalogue containing 3000 varieties. In 1901, he was assigned by the Ministry of Agriculture to study the fragrant roses of the Balkans. This study continued at l'Hay and experiments were done to create superior varieties of roses. He published the catalogue, "Roses Cultivated at l'Hay in 1902: An Attempt at Classification"; a significant advance over the previous catalogue, as it included nearly 7000 varieties, identified and catalogued.

The rose has beautified nature with its colours and fragrance since the dawn of time. The extensive research carried out by M. Gravereaux takes us back several thousand years. In 1906, he undertook the *Ancient History of the Rose*, in which he related the stages through which primitive wild roses were gradually transformed into our rich modern roses. He was not content to present his findings in writing, but wished his garden to be a living testimony. He set out to present the evolution of the rose through two flower beds:

Prehistoric man was content to observe nature, thus he lived among *Rosa canina*, *R. pimpinellifolia*, *R. arvensis*, *R. sempervirens*. In **ancient times**, the idea of cultivating known rose plants was born, and *R. gallica semiduplex*, *R. gallica duplex*, *R. sancta*, *R. alba*, *R. centifolia*, *R. damascena*, *R. moschata* were used. Next we find the roses grown in the East, starting in the **Middle Ages**: *R. lutea*, *R. lutea punicea*, *R. sulphurea*, *R. rubigenosa*, *R. gallica*, *R. muscosa*. Later came the roses from the Far East introduced in the **18th century**: *R. chinensis*, *R. indica major*, *R. indica fragrans*, *R. wichuraiana*, *R. rugosa*. Bengals, after cross breeding produced Noisettes, Bourbons and Goursaults. The first **modern roses** appeared at the end of the 19th century: Hybrid Perpetuals, Pernetianas, Hybrid Teas, descendants of *R. wichuraiana* ('Dorothy Perkins'), *R. rugosa* ('Roseraie de l'Hay', 'Pink Grootendorst'), Polyantha ('Cecile Brunner'), Polyantha Miniature ('Perle d'alcanada'), Floribunda ('Alain') are also found here.

The role of the Roseraie de l'Hay extends beyond this section devoted to the History of the Rose, but is also known as a "living museum of roses". It occupies a unique place in the national heritage, and as such its interest is twofold:

- It is a testimony to the horticultural genius of a decisive period in the development of the rose.
- It is a genetics conservatory, studied and used by amateur and professional rosarians. Very old and rare species are found here.

The different collections are:

The Horticultural Collection, a veritable museum of several hundred horticultural varieties of all species and shrub roses. Among the shrub roses we find Floribundas, Polyanthas, Hybrid Teas, Noisette hybrids, Ile de Bourbon hybrids, Bengals, and 'Miss Lawrence' rose. Among the climbing roses are: *R. multiflora* varieties and hybrids, descendants of *R. wichuraiana*, Climbing Teas and Hybrid Teas, Climbing Noisette hybrids, Climbing Bengals, Ile de Bourbon hybrids. **The Gallica Rose Collection** contains Provins roses, Damasks, Centifolias (cabbage roses), Moss and Alba roses. **The Roses of the Far East Collection** include *R. lutea*, *R. lutea punicea*, *R. watsoniana* and *R. serica*. **The Roses of the Malmaison Collection** are a copy of the Malmaison garden. **Foreign Roses** are roses obtained outside France. **New French Roses** contain a selection of the most recent and outstanding French roses. There is also a **Collection of Burnet and Rugosa Roses**. **The Botanical Collection** has a various types of wild roses. This collection provides a wealth of information for rosarians and botanists, but it is equally interesting to the amateur, for whom the only recognizable wild rose is the Dog Rose (*Rosa canina*). **The Tea Collection** contains the fragrant and continuously blooming Tea roses, ancestors of our modern roses. **The Ornamental Garden** is in the centre of the Roseraie, a French garden in which ornamentation is composed exclusively of roses.

The Roseraie has become a model which has been reproduced and reinterpreted the world over, and of which Bagatelle and Malmaison are extensions.

I would like to conclude by making an appeal. This year we have been faced with the grave consequences of an exceptionally severe winter. Numerous old and extremely rare species and varieties were lost. Four hundred and thirteen plants were frozen. To rebuild a part of the collections which were destroyed, we seek the following roses and thank you in advance for your assistance.

Rosa brunonii, *R. gigantea*, *R. gigantea* 'La Follette', 'Lorraine Lee'. *R. x odorata* *R. x odorata* 'Amazone', 'Blumenschmidt', 'Cels Multiflore', 'Comtesse Emeline de Guigne', 'Dutchess d'aerstaedt', 'E. Veyrat Hernanos', 'Isabelle Sprunt', 'Lady Mary Corry', 'Mme. Azelie Imbert', 'Mme. Chabanne', 'Mme. Constant Soupert', 'Mme. de Watteville', 'Mme. Honore Defresnes', 'Regulus', 'Rosette de Lizy', 'Sombreuil', 'Souvenir de Leonnie Viennot', 'Souvenir de Catherine Guillot', 'Sylphide', 'William R. Smith'. *R. wichuraiana* 'Primevere', *R. chinensis* 'Comte de Bobrinsky', 'Reve D'Or'.

THE WOHL ROSE GARDEN

Amos Rosenthal - Israel

The Wohl Rose Park is in one of the most beautiful locations in Jerusalem, opposite the Knesset, Israel's Parliament. It is on one of the highest hills in Jerusalem. The park was opened to the public on October 17, 1981 in conjunction with the Fifth Convention of the World Federation of Rose Societies.

The Park was constructed by the Jerusalem Foundation. The twenty-five acre park exhibits, through an informal landscape, elements typical to Jerusalem's environment. It contains thousands of flowering plants of all types from all over the world, as well as fountains and waterfalls.

In 1981 we put in bare pipes for climbing roses. Now the roses are up half the height of the pipes. We hope that at the next convention in Australia, we will have pictures of the roses at the top of the pipes. Around the perimeter of the park we have planted shrub roses. We grow 'Nevada' around the edge of the park so people will be forced to use the main entrance to enter the park.

We want the public to use the park, so we have things like Rose Day, with a puppet show for the children. We have a sunken garden, which is in a shady corner. Our sun and radiation are so strong, that to prepare the exhibitions for Rose Day, we used the shadiest corner of the rose garden. We showed various presentations of roses, not only with the flowers, but rose hip jam, and potpourri and many other uses of roses.

The idea of the garden is not to have a formal garden, but a free landscape using the natural slopes and rockery of Jerusalem. The garden isn't yet complete, but will take at least three or four more years. The latest addition to the garden will be the Historical Path, which will show some of the highlights of the history of the rose from ancient days up to today. The top of this path will end with the Garden of Nations, that will contain various varieties bred in each country.

On weekends the garden is full of youngsters and families who come to picnic. It's a very open area in the heart of the city and we hope the garden will be lived-in.

Something typical of Israel is the drip irrigation. The feeding and irrigation are done with the same system.

The place is naturally full of rocks and big stones and we didn't attempt to make anything artificial out of it. We have used the natural look of the garden.

ROSES IN JAPAN

Kagio Nakano - Japan

I am the Director of the Japan Rose Society and have grown roses for nearly forty years. When World War II was over, two thirds of the city of Tokyo was burned to ashes. Happily, my home was not, so I could afford to enjoy growing some flowering plants at that time.

In the beginning I planted any flower: camellias, dahlias, etc. But, after a few years, I concentrated on roses only. At that time the plants which were sold were poor and I was not successful. I planted as many roses as were available. Books on roses were very hard for us to get, but I tried to get them from overseas. Today there are numerous books on roses in both Japanese and foreign languages. Now I have a very large collection of rose books, most of which I have not read, but I have studied the pictures.

I started with a few poor bushes, but now I know how to care for them and my plants are very big. In the autumn they grow to nearly two metres. They bloom four times a year, if they do not lose their leaves in the hot summer (often insects eat the leaves). I don't mean side buds opening after the main bloom, but four full flushes of bloom. Japan is very warm and the climate is favourable for roses. There is no other such plant in Japan. I always recommend to people that they grow roses, because it is really wonderful that one plant will produce flowers four times in the year: the first flush of bloom is in May. A free bloomer like 'Granada' or 'Margaret Dickson' blooms in the middle of May. The second flush of bloom comes at the end of July. The third flush is in September and the fourth is in November.

The second flush blooms are smaller but the colour is rather rich. The third flush blooms are the same size as the first flush ones. With the fourth flush, some of the petals have difficulty opening because it is already cold, but, I put umbrellas (it looks like a beggar's house!) over the blooms. In December there are nearly one hundred umbrellas standing in my garden, but I like to enjoy cut roses inside the house.

I have nine hundred roses. Why did I plant so many roses? One reason is that I couldn't find out which varieties were good for Japan, so I planted everything I could find. The second reason was that I was very touched when I found a good variety. I have about five hundred varieties, from many nationalities. The rose gardens of America have mostly American varieties and the gardens of England have mostly British varieties, the gardens of France have mostly French varieties. But the Japanese gardens contain roses from all countries, so they are a bit unique.

These days Japanese introductions of roses are becoming acknowledged around the world. For example, Professor Onadera's 'Nozomi' was a big surprise. It is a ground cover with a very small flower, but covers the ground very beautifully. It is strange that in Tokyo it only blooms for one month, but in a cold region like Germany, it flowers for three or four months. Tokyo is warm but we have a lot of precipitation.

We like to use roses for Ikebana (slides were shown to illustrate).

One of the favourite roses in Japan is 'Perfecta' by Kordes. One hundred metres from the Emperor's residence is a rose garden which contains one hundred bushes of this cultivar.

DURBANVILLE GARDEN FOR MINIATURE ROSES

Ludwig Taschner (for Dick Lindner) - South Africa

Five years ago, the Western Cape Rose Society entered into an agreement with Durbanville municipality to plan and maintain a six acre public rose garden. At present this garden houses four thousand rose plants in beds laid out both for general decorative purposes and also a trials section. One particular feature, occupying what might almost be termed "pride of place", is set aside specifically for the display of miniature roses. So far only some six hundred miniatures have been planted.

The main garden is situated on sloping ground. The miniature garden has been installed right in the centre of this site and the slope has been excavated to provide rockeries on three sides, with two waterfalls descending the deepest bank at the back. Although the centre appears to be flat, there is in fact a slope, generally of one in one hundred, so that drainage is assured.

Since we had little money, the sandstone rocks for the rockeries on the three sides and the back slope were a problem. So, certain gardeners were persuaded that the rockeries in their gardens were not really necessary. The driver of the municipal lorry was instructed that if he ever saw a rock by the roadside, he was to pick it up and drop it off at the rose garden. After three months of begging and borrowing (on a permanent basis), yet without stealing, the rockeries and waterfalls were finished, and all at no cost. At this stage, various rumors circulated amongst local residents as to what was being constructed, chief of which being that the municipality was going to provide an open air swimming pool.

Crazy paving seemed to provide the best finish to the centre part, so we got in touch with a nearby firm who specialized in this, enquiring whether they had some undersized rejects we could use. We explained what we needed them for, and that neither the rose society nor the municipality had much available in the way of funds. The response was to suggest that we send a lorry to their depot to collect whatever they could provide. So it was that my wife set out with the municipality's six ton lorry and returned with it completely loaded with very presentable paving. When the municipal engineer expressed concern as to the possible cost, my wife replied that the firm did not mention sending a bill, and in fact, they never did. This was typical of the sort of help this project has received all along.

The municipal staff did the laying, to a design of beds we marked out for them. They took real pride in their work, which we think they found to be a welcome and interesting change from constructing sewers and storm

water drains. The horticulturist took good care to see that drainage pipes were laid under the paving. At the same time, the engineer had two concrete pools constructed, and laid on an electrical pump to return the water up the hill to a fountain, and thence back down to the waterfalls.

Planting in the first two years has been almost entirely in the rockeries, with groups of five of a variety. At the top of the rockeries we planted miniature standards, also in groups of five, which pleasantly heighten the aspect of a bank of colour. This year we hope to flank the entrance with two rows of miniature shrubs and to use the smallest varieties available for the beds set in the paving. Deliberately we shall take at least four years to complete the planting and thereafter to replace, in an endeavour to populate the Garden with the very latest introductions.

Already this Miniature Garden has aroused great interest and we think it has had an effect of popularizing the use of miniature roses in private gardens. Certainly, local nurseries report a volume of sales which makes it difficult for them to maintain adequate stocks. These fascinating little plants are really catching on!

ROSES AND PEOPLE

Craig Wallace - Northern Ireland

Roses have been associated with the Irish horticultural scene for almost one hundred years, ever since Alex Dickson, the third generation of the family, introduced what he called Pedigree roses from his fields, at the National Rose Society show in London in 1887. Those roses must have travelled first by horse to Belfast, then by boat to Liverpool and by train down to London. Those gold medalists, the first in a long line, were varieties, that have long since disappeared from the rose catalogues: 'Earl of Dufferin', 'Lady Helen Stuart' and 'Ethel Brownell'. In those days, just as today, nurserymen knew on which side their bread was buttered, so they called their roses after the gentry. From that year, 1887 until 1904, it remained with that firm to increase the fame of Irish roses. But in 1904, Hugh Dickson of Belmont Belfast, an offshoot of the old firm, entered the rose stage with a great hybrid perpetual variety 'Hugh Dickson'. It was one of the great roses of history and one of the last hybrid perpetuals. Then in the following year, 1905, Sam McGredy II, the present Sam's grandfather, introduced his hybrid tea the 'Countess of Gosford' and established the McGredy name. The Dickson firm today is personified by the 6th and 7th generation in Patrick Dickson and his son Colin and they claim to be the oldest rose breeding firm in the world. It was first established in 1836, the year before the young Queen Victoria came to the throne.

It is a little surprising perhaps, that a rose society was not formed in Northern Ireland until 1964. Over the years there have been various horticultural societies. The Rose Society was formed with the main object of promoting an international rose garden and trial ground in Belfast, and furthering the interests of rose growing in the commercial and amateur field.

The first roses were planted in Sir Thomas and Lady Dickson Park, in the winter of 1964-65. It was the brainchild of Sam McGredy. Pat Dickson also gave invaluable support. In the first decade, until 1975, the highlight of the year was that day in July devoted to the final judging of the trial roses by the international panel: Kordes, Meilland, Poulsen, Harkness, Cocker, Spek, Ilsink, Mattice, LeGrice, Onodera, Jackson and Perkins, etc. But it became obvious to me, when I changed from a government horticulturist involved in education and advisory service to a parks man, that the invitation to this annual feast of roses was too restricted. People, of course, came out to the rose gardens, but, if they didn't come, it didn't seem to matter. I held strongly to the adage that parks are for people. Parks are also for plants, but an empty park is not fulfilling its purpose. What better way to bring the parks to the people than by roses, the Queen of Flowers. Thousands of them are at their peak in July, in rural surroundings within a few miles of Belfast city centre. In July 1975, Belfast Rose Week took off. Some two thousand competitors, in almost the first few hours that afternoon, took part in what we called the Choose Your Rose competition, in which the ordinary members of the public compared their choice of winners with the expert international rose panel. Belfast Rose Week has become an established and much loved feature during the peak holiday period. Literally tens of thousands of people come out to Sir Thomas and Lady Dickson Park during the Rose Week.

What do we ask people to do when they come out to Dickson Park? We ask them to look at roses, to wear roses, to smell roses, to choose roses, to name roses, to show roses, to arrange roses, to judge roses, to admire roses, to buy roses and eventually and hopefully, to love roses. It is perhaps indicative of Belfast's success that other cities have followed its example: two are Dublin and Aberdeen.

What form does Belfast Rose Week take? First of all, there is the pre-publicity period. In collaboration with one of the local daily newspapers, a Miss Belfast Rose is selected and the successful young lady graces the various events during the week. The Rose Society of Northern Ireland holds its annual show under a marquee at Dickson Park, either at the beginning or the end of the week, according to the dates of the season. Band performances take place during the afternoon and evenings. As well as looking at the roses, visitors are encouraged to involve themselves in the various competitions. For the children there is a 'Thorny Treasure Hunt'. There is a Fragrant Rose competition with some of the world's most fragrant roses. In the Name the Roses competition, which is geared for the more expert, you are asked to put a name on the rose on display. (We help a little by having the rose names jumbled up on the competition form.) In the Choose Your Rose competition, the members of the public are asked to make their selection of the current trial varieties and it is always interesting to see how these compare with the expert's choice. In the Colour competition you are asked to place your first, second and third choices of roses whose colour most appeals to you. We ask the winners of the competitions to the Civic Luncheon in the city hall at the end of the week. During the course of the week, we have floral art demonstrations,

using the rose as the principal component. And we have rose lecturers and gardeners' question times and quizzes, etc.

Because publicity is very important, we have a Celebrities' Afternoon early in the week: we invite well known local celebrities such as sportsmen, politicians, and especially those in television, radio and the press. These people bring photographers along. The next day you find Rose Week splashed all over the local papers. The TV announcers are presented with a supply of buttonholes and corsages during the course of the week. The Rose Society has information kiosks, placed at strategic points throughout the rose gardens.

It goes without saying that the rose is one of the most popular flowers. It dominates garden colour from the end of June into early October, with the highlight periods being July and again in September. For Canadians and those who live in the northern part of the United States, it may be of interest that our winters are such, that no winter protection is required, and it is only on rare occasions that roses die because of low winter temperatures.

For our trial garden, we ask for twenty-five plants of each variety of large flowered or cluster flowered roses, six plants of shrub roses, and three plants of climbers and ramblers. The best of these roses are then put on display in larger beds.

We are very proud of our rose tradition in Northern Ireland. Nobody can have ideal conditions for rose growing - sometimes we have a rather wet summer; but I believe that the quality and the colour, and the freshness of our blooms are unsurpassed.

WINTER HARDY ROSES

Art Coles - Canada

Humber Arboretum has just begun a winter-hardy rose garden. Many of the roses came from Lynne Collicutt in Morden, Manitoba, and some came from Dr. Svejda in Ottawa. Our rose garden was planted about three weeks ago.

By way of introduction: the Humber Arboretum began only recently, in fact, it only opened officially in 1982. If you are familiar with botanic gardens around the world, and most of them contain an arboretum in some phase, you think of mature, large specimen trees. Well, ours is not that, as yet. However, we have many other projects in many other areas.

I should start by saying that we are not normal in our management style. We are managed by four government agencies, which is lots of fun. But they do give me a free hand in many ways, so it does work very well. The other thing is that we have no capital budget for development, except the money that I'm able to raise through private, corporate and foundation sources.

We have a total of 300 acres to develop. Currently we are just completing about 75 acres. Our next project, which we will be starting within the next two years, is a Japanese garden. We have had an architect from Japan, sent by their government, to approve our site.

We integrate very closely with our community college students and, unlike many of universities, we are not a research institute, but a technical institute. We are a very practical vocational type of college. In full and part-time students we now have an annual enrollment of close to 75,000 students. Students from different programs use our facility: photography, art, video, landscape students, horticultural students, day care, etc.

Our Nature Studies Centre's prime focus is to educate young people between the ages of 6 and 12, in the areas of the environment and ecology. We now run about 7,000 of those students through this facility in a year and the assembly-line is rapidly increasing. The designer of the building thought in terms of an arboretum, when he designed it, and hence the aerial view of this building is tree-shaped. The internal structure is tree-shaped as well: there is a large central beam with arching branches going out from it to the edges, which gives a tree-like effect.

The wildflower garden was sponsored by the Garden Club of Toronto. It's a natural woodland garden of native wildflower species, primarily spring flowering species.

Our newest project is our demonstration garden. In the demonstration garden we have a series of houses; in fact replica houses. There will be front and back yard landscapes, seven in total. There's a young family garden, two townhouse gardens, a hobbyist's garden, a shade garden, and two balcony gardens. Being in an urban area with lots of apartments we are having a low cost balcony garden and an expensive balcony garden, which will be created to overhang the valley, to actually appear as balconies. We will also have a hedge collection, used in a functional manner, and a large trellis that will contain our vine and climbing rose collections.

In a common green area extending 12 feet in front of the house will be plantings in a front yard. The gardens include patio areas, seating areas, front landscapes, fences. Everything you would include in a garden. In the young family garden, in fact, there is a playground.

Roses have just been put in, probably planted on this very day, in the hobbyist's garden, which has a rose garden of hybrid teas, recommended by one of the local rose societies. In fact, the York Rose Society has donated all the roses for this particular project.

In the valley there will be six more gardens. They will be called suburban gardens as opposed to the others, which we call urban gardens.

Our hardy shrub rose garden was planted this spring and last fall. It extends for 405 feet along a pathway, about 10 feet wide. There are about 128 roses in it right now, some 23 or 25 varieties including the Parkland

series, which Lynn Collicutt described in her lecture. We also use them in roadside plantings to test them for salt resistance, among other things.

Amongst other things, we have the beginnings of a rhododendron collection. Our latest introduction into that collection is a series of *Kalmias* from the Connecticut Research Station. I know these are not roses, however, they are, of intense interest to us, simply because they are hardy and survive in this climate, which has always been difficult with this group of plants. And this particular plant is extremely hardy in this area and will even survive in Zone 5. One of its parents is a native plant of Muskoka, so I guess that's one of the reasons. Another interesting thing about this collection is that all the planting has been done in the late fall, November, and we have yet to lose a plant.

As you can see, we are quite new and we are involved in a fair number of new projects, of which a keen one right now is the demonstration gardens. And part of the demonstration gardens' responsibility will be to demonstrate winter hardy roses. I know that a lot of people at an organization like this one are involved in the use of hybrid teas, normal climbers, floribundas, and so on. But many people are not aware that there is a group of winter-hardy roses and therefore get discouraged. Our job, as an educational institution, is to educate the public as to what species are horticulturally useful.

CLIMBING ROSES

Richard Balfour - England

Climbing roses and ramblers are very versatile and can be used in gardens large and small, in parks, in towns and environmentally.

But first, a brief history of climbing roses. The species or wild rose which had the greatest influence in the development of climbers and ramblers is *Rosa wichuraiana* or the closely related *Rosa luciae*. Among the direct hybrids are 'American Pillar', 'Dorothy Perkins' and 'Velveteen'. From 'Dr. W. van Fleet' and its repeat blooming sport 'New Dawn', another important breed of climbing roses was developed, including 'Aloha', 'Pink Perpetue' and 'Bantry Bay'. Another important line comes from 'Max Graf' and *Rosa x kordesii* and includes 'Leverkusen' and 'Dortmund', which will light up any dull sky.

Rosa multiflora is parent of many important climbers, such as 'Dense du Feu'. Its other parent was 'Paul's Scarlet', which is also the parent of many other roses such as 'Chaplin's Pink'. This is grown very effectively in Geneva as a weeping standard.

From *Rosa bracteata* we have 'Mermaid', a very well known rose, but very thorny. *Rosa laevigata* produced 'Ramona', and going even further back, *Rosa sempervirens* gave us 'Felecite et Perpetue', (1827). It is one of the great old roses. Among the oldest climbing hybrid roses are the Noisettes and 'Gloire de Dijon', one of the great old roses which still does very well in England, and the Bourbons, such as the thornless 'Zephirine Drouchin'. Among early arrivals from China were the Banksian roses.

Many of the old hybrid teas (large flowered) and tea roses produced climbing sports. One of the greatest, in my view, is 'Crimson Glory'. This, as a climber was introduced in 1946. There are also climbing sports of the cluster flowered roses such as 'Iceberg'.

Turning now from history to practice, let us look at the use of climbers in some of the important large rose gardens of the world. At Roseaie de l'Hay and Bagatelle in Paris and the Gardens of the Rose at St. Albans, they produce magnificent sights on pergolas, arches, pillars, over buildings, and growing into trees, to add height to beds of shrub roses. At Roseaie l'Hay and Bagatelle, they use climbers and ramblers better than almost anywhere, except possibly Genoa, where they have arched avenues of ramblers and climbers. In Emmerentia, South Africa, there is a clever use of a banked sight with wooden poles for roses from above and below. Probably one of the best collections anywhere is in Professor Fineschi's Roseto at Cavriglia near Florence.

From seeing pictures or visiting large gardens, we can get ideas for our own gardens. We can use climbing and rambling roses either or their own, or with other plants, so that we have long periods of interest in the garden. There are many modern repeat flowering climbers, such as 'Handel', suitable for short pillars.

Sports of the old hybrid teas are often accused of not throwing shoots from the base. I developed a new idea of threatening them with harsh pruning: I made a little nick above what was a completely dead bud and then a new shoot developed. It was the threat of extinction, you might say. But like most climbers, these benefit from being trained spirally, in a curve or horizontally.

A few other uses of roses: the wonderful rose, 'Zephirine Drouhin' can be used to cover a well-head or trained along low chains or ropes. Then, you can grow roses into trees: 'Rambling Rector' is good for this if you plant it some feet away from the trunk of the tree.

Perhaps less usual is the use of roses environmentally, as I have done in our own home. When a road was built through our village, I got permission to plant roses along the fence of the field adjoining our garden. Underplanted with bulbs, they are planted more or less to a colour scheme, three of each variety, on average. I put a very thorny rose at the far end, to hopefully prevent people from picking the daffodils. Included are 'Albertine', 'Golden Showers', 'Crimson Descant', 'Altissimo', and 'Joseph's Coat'.

A most useful new rose is the climbing miniature 'Nozomi', which has so many uses in gardens large or small! It is used beautifully in Dublin and is especially attractive as a standard.

And last, but not least, is the use of ramblers as weeping standards. 'Paul's Scarlet' is an excellent example.

I wish you great success in growing these versatile plants.

ROSES IN THE SMALL HOME GARDEN

Vincent Gioia - USA

The theme of this part of the programme is "Home Gardens". In the United States, we have a very varied climate from north to south and we have an opportunity to travel to gardens of different kinds that are a reflection of the climate they experience. You will see how roses are grown in the United States, and some of the features the gardens have in common, as well as some of the differences because of climate and the different topography and land features.

Probably roses are grown nowhere better in the United States than they can be in California. Here there is an opportunity to use standard roses, that we do not have everywhere in our country. They are pretty much limited to areas where winter damage is not severe.

The use of a number of elevations, combined with the differing growth habits of various kinds of roses makes for a more interesting garden.

The use of miniature roses is another way in which a small garden can be made more interesting. You can, for instance, give it the appearance of an English formal garden, or the more relaxed mass planting.

It is nice to have walkways between the rows, not only to make it easier to get in and work, but to allow you to view the roses close-up. The use of grass for these pathways gives a more natural look, while its use around the individual rose beds can be made to give a European look.

Of course we can cover the fencing with roses - this will provide a very real colourful backdrop to the more formal parts of a garden (if you do not have a fence, then use a trellis to take advantage of the height available) or roses can be grown along the edges of a property to define its boundaries.

In the north many gardens tend to be less formal: bushes are grown closer together to give a massed effect and to overcome the effects of winter kill. Also in this climate, use is made of the more hardy, old garden roses; here again the use of other materials can produce a lovely effect, for example, squeezing mortar out between bricks in a brick retaining wall, as was done in olden days, can add to the effect of the old garden roses.

In many areas of the United States, lack of rainfall is a problem and I recommend the use of a drip irrigation system very heartily. I use one myself, which ensures that my own rose garden is always correctly watered, even when I attend conventions, such as this!

No matter how you arrange them, roses, properly grown, can without doubt provide the variation in the growth and flowering habits necessary to meet the needs of gardeners, all across the country.

ROSES IN THE SMALL HOME GARDEN

Charles Leon - USA

Roses need a half-day of sun and prefer to have their roots in well drained soil. This can be done with various amendments or by raising your bed a few inches if drainage is very poor. Roses prefer adequate room, with plants from two to four feet apart. They should face south instead of north, if possible. Reflected light from sidewalks, light coloured fences, light coloured walls can help to light up in an otherwise poor spot.

Design consideration is a strong factor, if you want a rose garden or plantings to enhance your landscape. Roses make their best appearance when framed, similar to paintings. The colours of the blooms and the vibrant foliage need a frame to set them off. Various types of frames can be utilized: a brick walkway, an evergreen hedge, perhaps a marvelous green lawn. Such settings do an excellent job of highlighting rose plants, especially in early spring when the foliage is dark maroon or orange-red. Muted tones of a concrete walkway, a wood deck, or just a wood fence will all perform similar functions. Edges, borders, frames, give rose plantings form and definition and raise your own appreciation of the colours and blooms. One of the reasons that rose plants in a container always look well, is because the container itself is a natural frame, highlighting the plants.

Most colourful plants, and roses in particular, like to be planted with others of their kind, in order to make a mass effect. Single bushes of many different colours, planted in any one area, will give a very uneven appearance. My first garden was a kaleidoscope that almost everyone has, when they first start. I lived with that particular garden for ten years and kept revising and revising it. Finally, in the 9th year I won the rose garden contest. But, after that, I started planning what my garden would look like several years down the line. In my present garden, I use the fifteen colour classifications of the American Rose Society. In each rose bed I have at least twelve plants. For instance: I have twelve whites of four or more varieties, I have fourteen dark reds, eighteen medium reds, twelve orange reds, twelve medium yellows, fourteen dark yellows, twenty-one pink blends, eighteen medium pinks, etc. These are hybrid teas and are planted throughout my yard. These fifteen colour classifications can be blended so that they will not distract from one another. Lighter varieties, such as whites or yellows, can be planted behind the orange-reds to give harmony. You can use yellows and yellow blends to blend other colours which may clash: many oranges and orange-blends will blend well with yellows or whites or even orange-reds.

The American Rose Society has an official system which classifies the various types of roses. These classes are: miniatures, polyanthas, floribundas, shrub roses, climbers, hybrid teas and grandifloras. Your own rose garden will consist mainly of the rose types, which are your favourites. My own rose garden consists mainly of hybrid teas and a few grandifloras. The side beds contain miniatures and floribundas, and the borders and fences contain my climbers. Throughout the rose garden, at the end of each bed, I plant not only fragrant roses, but also a tree rose.

Miniatures are usually low growing, generally 12 inches or less high and the plants have truly tiny blooms. Some minis get up to 2 feet tall, but the blooms and the miniature-sized foliage classify the bush as a miniature. Floribundas grow from two to four feet tall, and flowers are small and numerous. They usually bloom in clusters of twenty or more flowers. Often you can get a single bloom on a stem, grown naturally. The individual flowers in each cluster open separately and they create colour effects, which last over a long period of time. The growth habit of floribunda bushes ranges from very low and open to quite rangy. Plants should be 2½ to 3-feet apart. Some of the better floribundas in the Portland area are 'Charisma', 'Europeana', 'Evening Star', 'Icewhite', and 'Razzle Dazzle'.

Some of the great climbers are 'Dortmund', which is red; 'Handel', a white and pink blend; 'Royal Sunset' is golden apricot; 'Royal Gold' is a deep golden, fragrant yellow with huge, fantastically formed blooms and 'Shot Silk', which is a perfumed pink. Among the hybrid teas are 'Double Delight', a very fragrant red and white blend; 'Electron', a rich deep pink; 'Fragrant Cloud', a very fragrant orange-red, and 'Paradise', which we all love, and which is purple and red. 'Pascali' is a superb white with little touches of pink in it, once in a while. It will get some more pink when rain drops dry on it. 'Peace' is a favourite yellow blend; 'Princess Margaret' a fragrant medium pink, and 'Red Devil' is a perfumed medium red. 'Grandpa Dickson' (Irish Gold) is a good yellow rose.

For more than 50 years, the Royal Rosarians have had an annual rose garden contest, in the greater Portland area. They have specific rules, such as no intermingling of floribundas or polyanthas in with hybrid teas. Most people grow hybrid teas, because it seems that these get more attention from the judges, than do mixtures of polyanthas or floribundas or miniatures.

In your own outdoor areas, you can visualize more ways to plant new roses, but even more importantly, by understanding the effect of framing and colour blocks, you will know why you liked rose plantings that you saw in other gardens. And you will be able to duplicate those pleasing effects in your own garden.

There are three uses common to most homes: No. 1 is the outdoor living room; second is the entryway, from the street to the house, and third are the functional elements such as screens, fences and walkways. These areas are usually not distinct in a rose garden. Probably the most important area in the landscape is the outdoor living room: the section of your yard that you alone use, or perhaps often have your family and friends over there on warm days, to relax and enjoy the roses. Usually, if your area is large, with a large viewpoint, larger growing and flowering hybrid teas should be planted to keep the landscaping in proportion to the space. However, should your view and your available space be limited, grow more floribundas or polyanthas, or even miniatures. Miniatures can be utilized in the same way that hybrid teas can be used, except that your view point is going to be closer. Otherwise, you will only see a spot of pink or a spot of red or yellow.

Quite often a little mystery is needed in a rose garden. Perhaps you can partially block the view from other garden features with a fence or another planting. Then you walk around it and come upon a full display. These are the things that create interest and novelty in your garden. Roses can be used to highlight certain features of your garden, such as a sundial, a bird feeder or a small pool, like highlighting a table in your living room.

On the sundial at the R.N.R.S. Garden, St. Albans, England, the inscription reads "Even when sunny hours are past, the fragrance of the rose will last".

ROSES IN THE SMALL HOME GARDEN

Dick Squires - England

A few years ago, a writer in one of our national gardening magazines estimated that roses outnumbered the population in the British Isles by $7\frac{1}{2}$ to 1. I don't think his estimate is very far out. The Rose Grower's Association says that they are budding 20,000 rose bushes for sale this fall, and the life expectancy of a rose in the British Isles is at least twenty years. If you visit any city, any town, any village in Britain and walk down any residential street, road, lane, whatever, you will find roses in most of the gardens. This is not at all surprising since roses are our national emblem and flower, and they have been part of our heritage for over a thousand years.

In the gardens we visit, we find that some are very well grown and some are not so well grown - some are even neglected, never seeing pruners or feed or cultivation of any sort. Yet, from mid-June through to late November these roses usually thrive and bloom. In fact, I think the late Harry Wheatcroft hit the nail right on the head when he said that "the rose will grow despite the gardener".

Why is the rose so prolific in British gardens? Firstly, the climate is really right for roses, although, if you spoke to Mr. Average Gardener, he would argue with you and moan about the wind and the rain, etc. But I wonder what he would say if he had to put up with the Canadian winters or a three-year drought, as they recently had in Zimbabwe. Occasionally we get a light covering of snow, but it does no lasting damage. Very, very occasionally we get a spell of frost, but rarely is it fatal to the bushes, even the tree roses. We don't wrap the heads of the standards; we don't heel up the soil around the bush roses; we don't lay the standards down. I think the only fatalities are in the nurseries on the newly budded standard roses.

Another reason why roses are so popular is something that is not readily apparent to most rose growers: it has to do with the very slow development of the bush, from the time of pruning to the first flush of bloom. I compare my own garden with Toronto: in my sister's garden in Toronto, the roses were not pruned until right at the end of April and they are in full bloom now, at the end of June. My roses were pruned the second and third week

of February and the first flush won't come until the beginning of July. There is a much slower development of the rose and I think this helps in the rose's longevity, its health and its vigour. Of course, with this long spell, most gardeners will introduce something else into the garden to complement the roses as they are growing, and to provide additional interest. One of the most popular ways is to introduce spring bulbs of all sorts. When the roses are in full bloom, you could use trailing fuchsia as a good groundcover and augment them with miniature roses, still in their pots. If you leave them in the pots all summer they are quite easy to lift in the fall when tulips have to be planted. There is a wide range of plants that can provide early interest and early colour. You can use rock-plants with species tulips; annuals are interesting; pansies are very popular for this use. Often we find roses growing in mixed borders, in close proximity to many types of plants, some of them with very dense foliage and some of them quite rampant. Sometimes the rose has to fight for survival, but nearly always it succeeds and becomes the "Queen of the Border". Roses will grow quite happily with almost anything.

A garden always looks better if it has been planned. The height, the habits, the colour harmony, the fragrances all have to be considered when you are planning a mixed border. The main problem with roses, when they are in close proximity to other plants usually are mildew and insect damage. But any gardener worth his salt should be able to take that in his stride.

The most common way you will see roses in small gardens in Britain is as a mixture of varieties in a bed. Normally they look quite well. Others plant smaller beds of separate varieties, usually without the garden becoming regimented. I personally favour the latter method. The only problem is if you have a bad attack of blackspot on one variety ... Many gardeners arrange their roses so that they are interesting to everybody that passes by.

Standard roses are very popular. Very few gardens that have roses don't have one or two standards. They give you height and also bring the fragrance up nearer to you. They are very easy to grow, with the main requirement being a good, solid stake and a good tie. And, if you plant standards in the beds of mixed roses, you can plant more per square metre. A lot of gardens are gradually coming around to miniatures. In Britain we lag a long way behind North America in this regard, but they can be used to very good effect to underplant the larger roses.

Climbing roses are used in many many gardens in a wide range of ways. They can clothe a wall or cover a wooden frame shielding an unsightly feature. In the autumn you must reduce the climbing rose for wind damage and see that the ties are correct. You can cover columns with them or get lots of blooms for a small garden. Ramblers can also be grown to great effect on walls.

The smallest garden I know has room for just one rose bush. It is a single plant garden of 'Maigold'. The bush has never been pruned in the

last twenty years, except with sheep shears. Again, the rose will grow despite the gardener.

Rose hedges in Britain come in many different forms and sizes. 'Queen Elizabeth' can be grown to 4 feet 6 inches and pruned each year, so that height is restricted to this size. A taller hedge can be grown to screen anything, but to mask the legginess at the bottom of a taller growing hedge, you can plant a row of shorter growing roses or other plants, in front of it.

In one lane you will find several hundred metres of cultivated rugosa hedge and gates I call 'The Gates to Heaven'. This is not a small home garden. It's the headquarters of the Royal National Rose Society, but it has a great deal to do with small gardens. This year we sent a questionnaire to our members, to find out what their types of gardens and their special interests were. We found that over 80 percent of our members have gardens of less than half an acre, so we widened our policy of providing interest for the small home garden. We have introduced a lot of other plants and a lot of other ways of growing roses, to help the small home garden. For instance, we have a pavilion with two plants of 'Iceberg', underplanted with a bed of 'Manx Queen'. Around the brick wall of the sunken garden we show how miniature and trailing roses can be grown with other types of plants. There is a pergola with forty-six pairs of pillars in a semi-circle around the garden. For years they have been admired for the roses, but now each pillar also will contain a different clematis. We also show the best way of making a hedge.

This RNRS garden in St. Albans is really a condominium of small home gardens, which belong to the whole membership.

ROSES IN THE SMALL HOME GARDEN

Norman Beck - Northern Ireland

I was bitten by the bug around thirty years ago when I planted six rose bushes for a friend in a tiny little garden. It was an accidental beginning on my part and in the intervening years, I have had the pleasure of growing many varieties in three very different gardens. As a result, I feel well qualified to discuss the use of roses in the home garden situation.

Despite the inherent problems, a very small garden should not be dismissed as a possible home for roses. As well as my own experience, which began in that very environment, any small areas can be very effectively decorated with the flower. Using suitable varieties, they will peer over walls or simply adorn the front of a dwelling throughout the summer months. Breeders have given us a wide selection to choose from and a careful search through any good catalogue will produce ample material for any garden location.

In the small garden situation, it is useful to remember that height is not normally restricted. This gives scope for layouts that might otherwise be ignored where space is more liberally available. In the larger garden too, the opportunity may exist for colour grouping, though I hold the view

that the home garden is for variety and interest. Large displays of single colours are best seen to advantage in public parks.

There is another fascinating aspect of rose growing that the owner of a less than tiny garden might consider. Hybridizing, often considered to be the prerogative of the professional, adds another dimension to our favourite hobby. For many years, I have followed this pursuit and found it to be the most interesting period in my rose growing years. While the results obtained may have impressed few outside my own family circle, the activities have given me many hours of absorbing pleasure.

Looking more closely at the strategy we might adopt in the different situations, it has already been said that headroom is normally unrestricted. Climbers of similar habit to 'Golden Showers', 'Dublin Bay' and 'Danse de Feu' add considerable interest to a small garden fence or wall. Where space is more generous, there are many of more vigorous habit like 'Gleaming Spires', which will cover a large area very rapidly.

Standard roses add a further dimension to the layout and can be used in contrast to the surrounding beds. It is perhaps in this situation that the opportunity exists for the rosarian to cultivate his favourite varieties. Grown individually and at head height, they present themselves for admiration in the midst of a sea of other flowers.

The selection of bush varieties is so wide that personal preference and local climate become the main factors. If, however, we confine our thoughts to the smaller garden, then the most rewarding arrangement will comprise mainly of cluster flowered varieties. Many have traditional hybrid tea type flowers and lend themselves to many uses ranging from garden display to exhibition. It is well known that many successful exhibitors cultivate their bushes in comparatively small areas, so it is a matter of concentrating effort to achieve the required result.

Despite all that has been said and written through the ages, it is possible to make a satisfactory combination of roses and other garden flowers. In doing so, there are problems to be avoided, but in our case the advantage lies in the continuity of colour. All roses are dull between flushes and other plants bridge the gap very effectively. In winter, when the rose garden presents little more than bare sticks or pruned stumps, winter flowering heathers and spring bulbs can transform an otherwise desolate scene.

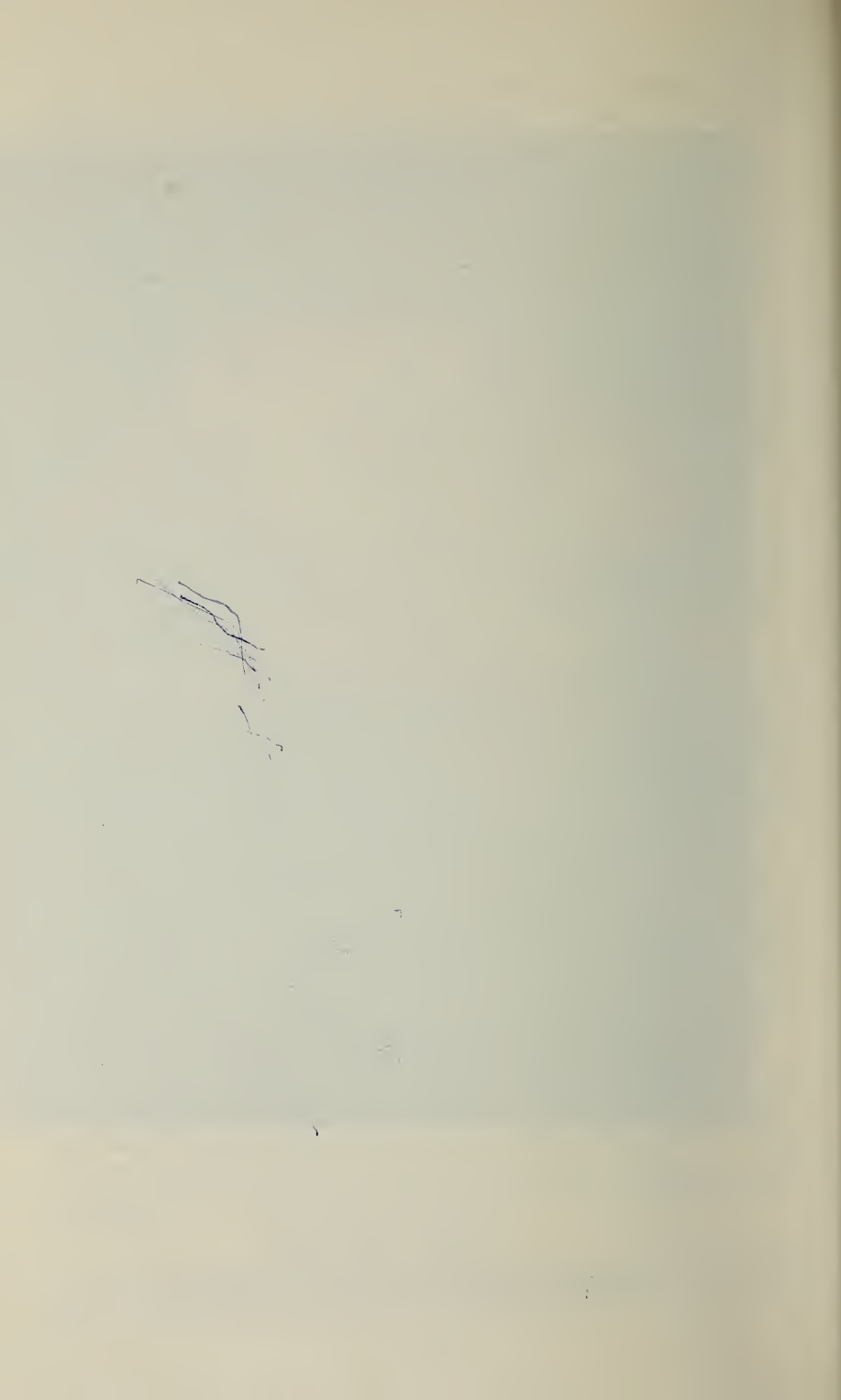
Concluding, I advocate making most use of height with climbers and standards. Concentrate on cluster flowered varieties in the beds with perhaps some miniatures, where space permits. These are best grown in their own plot of ground and closely spaced, otherwise they can be overshadowed by larger bushes. And of course, for lasting enjoyment in a personal sense - hybridizing.

The results may not excite your neighbours, but you will have lasting pleasure based on the knowledge that your new creations are yours and yours alone.



DOUBLE DELIGHT HT
(Swim - USA - 1976)

declared THE WORLD'S FAVOURITE ROSE as a result
of votes cast at the WFRS Seventh Convention.



GROWING ROSES IN MANITOBA

Betty Biddulph - Canada
Gordon Grindle - Canada

Before describing how we successfully cultivate roses in Manitoba, a brief description of our province is in order.

Manitoba is in the geographical centre of Canada. From south to north, it stretches from the 49th to the 59th parallel - a distance of about 1400 km. We boast of having 10,000 lakes, and to give you an idea of their size, the whole of the British Isles could be placed into the three largest of these. Gordon's home is in Flin Flon, north of 54° latitude. Noted for its zinc and copper mines, the area is largely composed of hills, forest, lakes, muskeg, and rock. Betty's home is in Winnipeg, 835 km to the south of Flin Flon. Winnipeg, the largest city in the province, is industrial, but surrounded by flat prairie land. A further 100 kms south-west is Morden, nestled in gently rolling hills and surrounded by fields of corn (*Zea mays*), sunflowers and grain. Lynn Collicutt does her hybridizing of hardy roses here.

In southern Manitoba, temperatures range from a high of 39°C in summer to an extreme low of -40°C in winter. Northern temperatures vary from 37°C in summer to -43°C in winter. The southern growing season is 4½ to 5 months (May 1 to September 30), often experiencing frost as late as June 16, and as early as August 15. Growth is very rapid, with fourteen hours of sunshine daily from mid-May to mid-August. The first flush of bloom begins about June 15 and peaks about July 1. Intermittent bloom continues, with the second flush about mid-August; however, we still have blooms in October. Since the sun loses its intensity by mid-August, roses are superior in colour, substance and fragrance after that date.

The northern season is somewhat shorter, but since Flin Flon is closer to the Arctic Circle, it is compensated by receiving more sunshine. There is never total darkness in summer, as the sky remains "pinkish" all night. The first flush of bloom, therefore, is only a week later than in the south, despite the fact that ice on the lakes keeps the temperature cool. Colours in the north are more vibrant.

We advise aspiring rosarians to follow the "Ten Commandments for Growing Roses" by Dr. Cynthia Westcott, but adapted for our climate. The first prerequisite is a proper site, receiving at least six hours of sunshine daily, preferably sited east or south, and free of large trees or shrubs. Planting near cement foundations is not recommended, as bushes tend to chronic chlorosis (probably due to leaching of trace elements) and reflected heat in early spring can cause the snow cover to melt too early. Two reasons for the eastern exposure are firstly; we experience hot days with strong sunshine followed by cool nights, resulting in heavy dew. The sooner this moisture dries, the less chance for blackspot and other fungal diseases to form. Secondly, the early morning sun is less intense and less liable to burn the plants.

Soil can be a problem for rose beds in our area. Most of southern Manitoba was part of glacial Lake Agassiz, formed thousands of years ago. Within a fifty mile radius of Winnipeg, the soil is alluvial deposit with large outcroppings of clay, commonly called "Red River Gumbo", after one of the rivers. We advise a soil mix of 1/3 soil, 1/3 humus, (peat moss or rotted manure) and 1/3 sand for drainage. In northern Manitoba there is a preponderance of moss, and although good for winter protection and for soil mixtures, gardeners like Gordon must haul soil from other areas to form their gardens on the rocky ledges, on which their homes are built.

Purchasing good quality stock from reliable sources is emphasized. *Rosa canina* rootstock has proved superior in our climate, but because it is difficult to propagate, it is almost impossible to obtain; hence roses are budded onto multiflora rootstock. Hardy shrubs are easily obtained, and it is possible to purchase "tried and true" varieties of "tender" roses from local nurseries. Newer varieties, however, must be ordered six months in advance from British Columbia, Ontario, or overseas. These roses are shipped bare-root, with good results. The only place to get these varieties locally is the department stores. Plants are in stock weeks before planting time, generally not cared for, and must be purchased as soon as they appear on the shelves and potted up. Roots dry out, weak leggy shoots appear, and often the plants die. Green wax, used by some producers, is also a problem. These are two reasons that many would-be rosarians quickly become disenchanted. Publications such as the CRS "Clearing House" and the ARS "Proof of the Pudding" and "Guidelines for Selecting Roses" are valuable when buying roses. All-America Rose Selections are not necessarily successful in our area, and we have established a test plot in Winnipeg to assist us in finding suitable varieties.

Planting is mainly done between April 15 and May 15, with potted roses being planted at any time of year. Established bushes can be successfully moved in the fall. A hole 20" wide and as deep is needed to get the bud union 2" below soil level for frost protection. Bushes are usually planted two feet apart, as they don't attain the size achieved in warmer climates. They are usually planted in an upright position, although a newer method of planting on a 30 to 40 degree slant is becoming quite popular. This allows water and nutrients to get to the roots more easily. Bushes are well watered and mounded with 10" of dry medium to protect the canes from the hot drying winds of May and early June. This is removed when the first shoots appear and pruning is done.

A spraying program is started immediately, but no fertilizer is applied until after the first flush of bloom. Fertilizer is applied every three weeks, three or four times a season, but never later than the first week of August. This allows the bushes to harden-off for winter. More important is adequate watering and a mulch to prevent surface evaporation.

The initial winter protection is applied in late October or early November. Methods vary, but generally, after pruning canes to 18 in. a 12 in. mound of dry medium is placed around the plant. Later, a further 1½ to 2½ feet of

medium is added and a waterproof cover is put on top. This helps shed late rains, mid-winter thaws and spring rains.

Climbing roses are laid down on boards and standards, grown in tubs, are laid on their sides. Both are then protected as described above. Miniature are left in the ground in the south and covered, but Gordon grows them in pots and brings them into a cool basement for their winter rest. If the basement is not cool enough to halt growth, it is better to leave them in the ground. Hardy shrubs need only nature's protection; likewise, the Morden Parkland Series survive unprotected. "Tender" roses have lived twenty-five years and longer, and standards have survived for eight years.

To some of you, this may sound like a lot of work, but it's about one hour per bush per year. Dr. Cynthia's tenth commandment admonishes to "Love your Roses" — we do. Any living thing that survives our winters deserves to be!.

In this park so bleak,
Without laughter or visitors
I stand by a rose in full bloom.
Thus, we are the only witnesses of beauty -
I of hers, and she of mine.

Maria Pawlikowska Jasnorzewska - 1893-1945.
from: "Roses, Roses" - an anthology published
by the Polish Rose Society, 1982

PLANNING YOUR GARDEN FOR BEAUTY WITH SHRUBS ROSES

Vickie Jackson - USA

Shrub roses are very useful problem solvers. We can use them to arrange vistas. Nooks can be made. The ground can be carpeted. Borders can be created. Canopies can be woven. Unattractive areas can be concealed and colours can be blended just like you are painting on a canvas.

Rosa longicuspis can grow up into a tree or can be draped over it. That would really stop the traffic, if it was in your garden. It grows about twenty or thirty feet high and smells like bananas. You could use any rambunctious climber such as *R. filipes* 'Kiftsgate' or 'May Queen' or 'Mermaid'. On a more modest scale, use 'Veilchenblau', a plum Rambler. 'Violette' is a pastel violet with the same type of flower and they look very nice together.

I like to use these shrub roses for hedges. A very good type to use are the rugosas, which originated in Japan. They have pest-free foliage and are built out of iron. You can use one of the Grootendorsts. There is a pink variety that reminds of a little fringy carnation. The foliage is very healthy. Another very lovely species is *R. rugosa alba*. It has healthy foliage and you don't have to worry about bugs. For those who like fragrant roses, 'Hansa', also a rugosa, is the most fragrant thing you have ever smelled. In the fall you get a bonus of hips. *R. rubrifolia* is very striking for use in arrangements. Its foliage is plum coloured and in the spring, so are the canes.

If you live in a place with rough banks where grass won't grow or is hard to cut, consider something like *Rosax paulii* or perhaps *R. wichuriana*, which is flat and flowing, or 'Max Graf', 'Dortmund' is a popular modern shrub; it's a Kordesii. I like to grow white clematis under these kinds of roses. It forms a nice base.

Many people ask where they can see these roses before they buy them. Well, find a public garden. Maplewood Park in Rochester, New York, has a fine collection of shrub roses. Or, if you are in Paris, stop by the Roseraie de l'Hay and see how they use clipped boxwood hedges and arches. Another one of my favourites is the lovely National Trust Garden in Hampshire, England. They plant perennials under the roses. This garden was designed and directed by Graham Stuart Thomas and there you can study the history of the rose as it evolved in Europe. St. Albans is another good place to visit.

Let us turn our attention to the home garden because most of us don't have a park to plant, and want to know what we can do in our own garden. It is not very practical to mix old roses in with the moderns. You can put them outside the fence, between the sidewalk and the street and under-plant them with things like iris or daylilies, which bloom a little bit later.

One of the most fragrant roses is 'Mme. Isaac Pereire'. It is a Bourbon and it blooms recurrently. The white foliage of 'Lamb's Ears' goes very well with the old garden roses. There is a lovely little delicate painted

damask called 'Leda'. you have to get used to this style of rose. It doesn't have a high pointed centre, but it has a beauty all its own.

The gallicas are among the oldest and hardiest roses. 'Charles de Mills' changes colour like a chameleon. Sometimes he will look mauve and sometimes dark, dark pink. But they all have a nice mixed centre, 'Tuscany Superb' only blooms once. You put it at the back of the bed so you don't see it much, when it's not in bloom. But when it is in bloom, it will give you hundreds of blooms, especially on an established plant. 'Mme. Hardy' is a white rose that's hard to beat. It has a little green button eye and a fluffy centre. It only blooms once, but it has hundreds of blooms. 'Vicki Caprice' is a recurrent hybrid perpetual. It was found in Rochester, New York, as a sport. It has a neat habit, and doesn't sprawl all over the place. A centifolia, 'Tour de Malakoff', is a once bloomer, but again, very pretty.

Albas have blue green foliage. Try a very old rose called 'Celestial'. It only blooms once, but you get lots, when it does.

Some people think that you need a park to grow old roses. Well, *Rosa Gallica versicolor* can be grown in a pot. It only blooms once, but when it does, you bring it out and put it next to the fishpond and enjoy it. When it stops, you put it in the back garden, where it doesn't show and wait for next year. If you want something more rambunctious, plant a 'Mermaid'. I saw it trained up the side of William Shakespeare's home in England. It has beautiful glossy green foliage, is fragrant and the petals drop cleanly, so that you have lovely showy stamens. 'Climbing Cecile Brunner' is a polyantha, that I first saw at the University Botanic Garden, Oxford. It covered a ten-foot piling and then trailed over two railings. The flowers are bigger than the bush form. If you want something that will cover a lot of space, go with this. *R. banksiae* comes in two colours, yellow and white and is very tender. In the south it is a very early bloomer, usually in March. You have to keep your pruning shears handy because it will grow very vigorously.

I like hybrid musks such as 'Buff Beauty' because they will grow in partial shade. You just don't get as much colour. They are very handy bushes because they bloom repeatedly, are fragrant and come in all colours. You can train them up the side of houses or trail them over fences.

We get our repeat bloom from the China roses. 'Old Blush' (or 'Parson's Pink China') can grow anywhere and can be used as a hedge. *R. chinensis mutabilis* looks like a convention of butterflies. The China roses get darker as they age and that's why there are so many colours on the bush. Then we have the controversial *R. chinensis viridiflora*: its good at a cocktail party, because people wonder what it is.

Austrian Copper is a species that gets huge, so you must be careful where you put it. We thank this plant for all the vivid colours that we have today. The oranges and hot yellows in our modern roses come from it. But of course, so does blackspot. One of my pets is a species, *R. Roxburghii*, the Chestnut Rose, because the bud looks like a chestnut burr. It has step-ladder type leaves and a silvery, peeling bark. It is very unusual, but give it room: it will get big.

Some people think these roses are too delicate for bouquets, but if you pick them when they are tight, they make very nice cut flowers. Once they bloom, they just fall apart. In America, we enter them in shows as single specimens, although we do have some classes for bouquets. In England they go mostly for big bouquets.

If you want to round-out your education a little more, buy a book on the subject. Michael Gibson has written one of the best; Graham Stuart Thomas has written several; Trevor Griffith has written one. I would ask you to be bold and brave. Take a walk around your garden and note any troublesome spots and then pick just the right old rose for it.

OLD GARDEN ROSES IN THE MODERN GARDEN

Charles Jeremias - USA

You start growing hybrid teas and then look for something different. I went to singles and then to old garden roses because of the shape, the form and the variety. They have become of great interest in the south-eastern United States in the past fifteen years.

Many people say they don't have the space to grow old roses. When Lephon and I got married five years ago, both of us had been growing roses for twenty years. She said "I'm not going to be married to a rose garden. You can only have 100-foot square". I didn't realize the rest of the acre would be taken with old roses. We planted hybrid musks along the driveway. If you don't deadhead them they quit blooming, but they make a nice display intermingled with your old garden roses and give continuous bloom. I planted the old garden roses along the fence, as an outline for the regular garden. I have rectangles and triangles in the corners and a bed of polyanthas in the front circle, including 'Paquerette', the first polyantha. I also have some modern hybrid teas.

An arch can be built out of steel rods and planted with 'Mary Wallace', an old climber. It only blooms once, but when it does, there are usually 1,000 or 2,000 blooms on it. I grow a lot of old hybrid teas like 'Christopher Stone', 'La France', 'Marie Adelaide', and 'Mrs. Jennie Deverman'. They go nicely with the house, which was built about 1899. We also have a little garden in the back with about 100 miniatures. You can fill a corner with miniatures and they will bloom all summer long.

Some of the roses I have are: 'Dortmund', the spectacular Kordesii, growing beside 'Pax', a beautiful white with almost hybrid tea like blooms. 'Goldbusch', another shrub, was supposed to repeat bloom. Last year it didn't, but I realized that I left all the hips on. So, I'm cutting them off this year. I have a little more pink in my 'Prosperity', than most people, because we have a lot of phosphorus in the soil. 'Buff Beauty' is a different type of hybrid musk. I have a three year old plant of 'Shailer's Provence' from one stolon. We got it from a roadside in South Carolina, thinking anything that grows like that, we ought to take home. We didn't realize

how big it would get. It has very beautiful blooms, but only blooms once. I have it along the fence, again for outline purposes. 'Rivers' George IV' (1820) is also planted there. It has a nice fragrance. We found it at an old house in the country. We also have rugosas along the fence. 'Hansa' has beautiful hips in the fall. In the south it doesn't produce as many blooms, because of the heat. One of my favourites is *Rosa rugosa alba*. It is a very spectacular white, with the usual rugose leaves. It's popular because it doesn't need spraying.

Rosa hugonis, or Father Hugo rose, is my early bloomer. Everybody in town has azaleas, but 'Father Hugo' blooms with them, two weeks ahead of the rest of the roses. The first time I sprayed it I almost lost it, because it resents any type of fungicide. For a few aphids, use Malathion and just spray the tops. *R. eglanteria* has odd shaped little hips. I love it because it has fragrant foliage. When it's wet with dew, you can smell it fifteen feet away and you think you're in an apple orchard. If you have a big corner to cover, plant this and your garden will smell like a rose garden, if nothing else. It only blooms once, but the leaves are fragrant all season long. 'Tuscany Superb' (1596) is often described as deep red, but really is more mauve. 'Belle de Crecy' starts off pink, goes to mauve, and then ages to almost slate-grey. *R. gallica officinalis* gave the sport 'Rosa Mundi'. I have it growing along the fence. A one-time bloomer, but again, the leaves stay green all summer. 'Maheca' is also called 'La Belle Sultane' or 'Violacea'. I like it because of its bright yellow stamens and the little red petals that look like somebody painted them with black paint. It blooms before *R. gallica officinalis*. I have them together, so one blooms for about two weeks and the other is right behind.

Along the sidewalk, I grow 'Clair Matin', a spectacular climber, but I grow it as a shrub. If you want a repeat bloomer, I would recommend this. It has a nice peach shading, varying in colour to almost white, as it ages. On our sixteen feet of picket fence I planted 'Sombreuil', the climbing tea and it's taken over. Unlike most teas, it has withstood the winter very well. It was 3 degrees at Christmas, two years ago, and minus 3 degrees this past January. I don't remember temperatures like that in my lifetime down south. But this came through with very little dead wood. It will have 500 to 1,000 blooms on it at a time. I love it for its fragrance. 'Old Blush' (Parson's Pink China) is truly everblooming. If you keep it deadheaded, you will have a bloom nearly every day from May. I agree that *R. chinensis minima* (*R. roulettii*) may be the dwarf self-seeded variety of 'Old Blush'. The blooms, shading and colour are very much alike.

I realized one day that I had planted a patriotic fence of red, white and blue roses. My blue was 'Veilchenblau'. It can be pinkish and get more mauve as it fades. It is a very rampant grower. 'Sombreuil' was in the middle and the 'Antique', which is not an old rose, but it has the right name; it's a floribunda. 'Beauty of Glazenwood', (Fortune's Double Yellow) doesn't look very yellow, but when it first came out (1845), it was considered very yellow. It's very beautiful, almost like tissue paper. The sun shines right through it. If you want a rambler or a climber to cover something, use *Rosa odorata*.

I have an old rose bush that my wife remembered was up in North Carolina on the old homestead. The rascal was still growing in the woods. We figured that anything that hardy should be brought home. It's thirty feet high and we're not sure what it is. I have another one we found growing in 'The Fairy' and thought it might be rootstock, but it's not: maybe 'The Fairy' that has sported back. It blooms all year long. Then we have 'Cardinal de Richelieu', with a question mark. We've had it in the south for a number of years as 'Cardinal de Richelieu', but I have never been satisfied that it is what it is, and now I know that it isn't! But I haven't been able to identify, which of the gallicas it really is. It looks a lot like 'Cardinal de Richelieu', though it's not quite as purple. The true 'Cardinal de Richelieu' starts off with a pink bud and then goes to almost a grape-purple, with a little bit of white in the centre. Another one we found, we call Grandpa's Rose because Grandpa tried to plow it up, tried to dig it up, and even salted the earth. He hated that rose because he couldn't get rid of it. But anything that could grow that well, I wanted. I took home one little stolon, and now I have 50 canes growing on one bush. It's a one-time bloomer. We believe it is the 'Bishop's Rose'.

'Fabvier', a China, is a tiny bush, no more than two feet high. If the deadheads are cut off, it will bloom all year. One of my favourite moss roses is 'Salet'. It is a beautiful, symmetrical flower and wins a lot of Dowager Queen awards. If you want to cover a corner with something that spreads and gives you fantastic bloom, has moss, blooms during the summer and is a heavy repeater in the fall, I'd recommend 'Salet'. The Crested Moss, 'Chapeau de Napoleon', is not a true moss. It's noted particularly for the crested buds and beautiful flowers with button eyes.

Rosa spinosissima is low growing and blooms for several weeks in early spring. It's a single white and there's a yellow variety. 'Fantin-Latour', a centifolia, is a delicate pink. It is a very spectacular rose, but again, only blooms once. 'Charles de Mills' has a lot of quartering. *R. chinensis nutabilis*, I agree is really 'Tipo Ideale', that Redoute painted back in the 1820s. I think it should be named that and given a chance to compete for Dowager Queen. It starts off orange-yellow and ages to a bright red.

My *piece de resistance*, 'Austrian Copper', was reverting back to 'Austrian Yellow'. But the good Lord didn't intend me to keep it for some reason. Last year He sent a tornado. It spared the house but got half the bush. And then about three weeks ago, we had a hurricane-type rainfall, and it got the other half of the bush.

QUESTIONS

Q. How do you fertilize?

A. I use the one-time fertilizer, Osmocote. We have to fertilize in April, so we use a little 10-10-10 to get them started. Then, when the weather warms up, the Osmocote takes over.

Q. How do you spray?

A. I spray with an Atomist on the low setting. I have just over an acre with about 500 bushes, 200 of them old garden varieties. It takes me close to three hours to spray.

Q. If you could grow only one large bush, which one would you recommend?
A. My three favourites are 'Austrian Copper', because of its background and history, *Rosa elglanteria*, the Eglantine Rose, because of the fragrant leaves, and my real favourite, climbing 'Sombreuil', because of its fragrance and spectacular bloom.

ALL THE TEAS IN CHINA

Clair Martin - USA

The Chinas and Teas were an important influence on our modern roses. There were no repeat-blooming roses in Europe before 1752, when Slater's Crimson China and Old Blush were introduced. Before the 19th century, probably only Quatre Saisons dependably repeated. Our modern repeat-blooming roses come directly from them. All our climbing roses are directly descended from wild climbing roses grown in China. In addition, they gave us new colours. Before Slater's Crimson China, there were no true reds in European gardens. They were called reds, but they were deep pinks and lavenders. The first yellows came directly from China, although modern yellow didn't come in until 1900. Not only were colour, type and repeat bloom influenced by the China roses, but also the style of bud we consider most important today. The early Chinas and Teas brought in a shape that was entirely new to European gardens. The old flat, cupped blooms, very popular in the middle 19th century, were hybridized with these pointed buds, and eventually formed the class we call hybrid teas. The China roses do not hold that high shape for very long, - they open up rather flattish, which made them very popular with the people of their day.

Rosa sempervirens is THE important red and THE important parent of all modern roses. It is directly responsible for the rose 'Olympiad', if you want to look back. Another form of *R. sempervirens* is *R. sempervirens simplex*. Both are in Andrew's book *Roses*, published in 1805-1828.

Slater's Crimson China isn't really deep red at Huntington Botanical Gardens, fading out in the southern California sunshine. It has white striping among the red petals. If you take apart a 'Mr. Lincoln' or an 'Olympiad' or any modern red rose, you will find that characteristic white quilling at the base of the petals, directly inherited from Slater's Crimson China. 'Agrippina' is very similar to Slater's Crimson China.

'Louis Philippe' from Guerin is a very early China (1834). Like many of the Chinas, it has very dark outer guard petals. When it first opens, the centre is a pale pink. As the sun affects it, it turns much darker red, so that you get different colours all over the plant. It's very similar, although in a pinker form to 'Archduke Charles'. Most of our roses tend to fade as they are exposed to sunlight. With the Chinas, the opposite is true - they darken as they age. A Floribunda that was very popular in the 1940s, 'Mascarade', does this. You get three or four different coloured flowers on it. It has sported back to this China characteristic.

Europeans didn't know where China roses came from. They assumed, because they came on the tea ships and East India trading ships, that they were actually Indian roses. They were probably not species, even though the early botanists gave them species status. They are probably garden hybrids that had been in China for a long time. Many of them were bought in one nursery in Canton, that was active up to the early 1860s. Europeans were not allowed inside China at that time: they were allowed into the port cities, often just in the very small areas around their factories and commercial centres. This nursery happened to be at the edge of the city, right at the furthest point that Europeans were allowed to go. The sea voyage to Europe was so long, two years or so, that they often stopped in India and planted them at the Botanic Garden in Calcutta. This caused the early botanists to call *Rosa chinensis* - *R. indica*.

'Old Blush' grows in many gardens in southern California. It has been described as the closest thing to a constantly blooming rose. It is moderately hardy. Many of these Chinas were grown as far north as Philadelphia, with minimal winter protection, and near Boston with Hybrid Tea type protection. 'Old Blush' is one of the other parents of our modern roses. It brings in the pink line of the China roses and also this constant repeat-blooming characteristic.

'Hermosa', one of my favourite roses, is a larger 'Old Blush'. It is fuller, very cupped, very fragrant, and makes a large bush. (It was called 'Armosa' at one time). 'Napoleon' is an interesting rose in our garden. It dates to before 1848, meaning it was not in William Paul's book *The Rose Garden*. To show you the fleeting nature of fame, after Napoleon was defeated, its name was changed to 'Madness of Corsica', and later, it became known as 'Prince Napoleon'.

'Eugene de Beauharnais' is one of my favourite China-Bourbons. The colour is often described as amaranth. It is a very beautiful purple-red and very fragrant. 'Cels Multiflora' is a very early Bourbon-China. It has a marvelous high-pointed centre and then opens up to the style of the day, the flatter quartered shape. Another medium sized Bourbon-China is 'Mrs. Bosanquet'. 'Ducher' is one of those later Chinas, from about 1869. It is pure white, a lovely little bush, with little flowers about the size of a quarter.

The Green Rose is *Rosa viridiflora*. It is a very interesting rose. There is a novel, called *The Green Rose of Fleury*, written as a memorial to a family, who were Quaker nurserymen near Baltimore in the 1850s. This rose is mentioned as growing in their garden in the 1850s. Nobody really knows exactly where it came from.

'Comtesse du Cayla', another really late China (about 1902), is a lovely small bush, with the flowers often going orange or brick-orange when they open. Not only did the Chinas bring in shape, but also soft swirling colours, that then carried into the Hybrid Teas of that period, and came down into today's lovely bi-tones.

One of the last Chinas introduced is 'Gruss an Teplitz'. This is a rose you find in a lot of old places. It is about as red as any China could be. It is listed as a Hybrid Tea in a lot of books. It has a very complicated parentage, with China, Tea, Bourbon, and even some species roses in its background.

Now some Teas: *Rosa x odorata* is probably one of the group that was introduced in the period from 1805 to 1828. It shows a lot of the very characteristic loose shape and down-hanging bloom that Teas are known for. 'Safrano' is one of the very early Teas and it is also one of the first popular yellow roses. It doesn't look very yellow today, being the colour of saffron, paling off to pink. It has great shape and lovely fragrance.

'Devoniensis' is one of the few popular early Tea roses that were hybridized in Britain (c. 1838). It was also called the Magnolia Rose. Even though it opens rather flat, it does have that high pointed centre that was instrumental, in hybridizing and back-crossing with hybrid perpetuals, in forming the hybrid tea class.

'Bon Silene' is a gigantic shrub, six feet tall and about five feet through. It blooms all the time and has rather loose petallage, very typical of the Teas introduced into our modern roses.

'Duchesse de Brabant' is probably the most popular of the old Tea roses. It isn't very tall, about three feet, but it has that marvelous cupped shape that was so popular. 'Mme. Joseph Schwartz' is either a seedling or a white sport of it. 'Souvenir d'un Ami' (or Souvenir of a Friend) is a very handsome rose with a rather open shape. It's a low grower, maybe knee height, but rather spreading. 'Madame de Tartas', a Tea from about 1859, is a very important parent of a lot of modern roses. It was used extensively in hybridizing with Hybrid Perpetuals. It is quite possibly the parent of the Polyantha 'Mlle Cecile Brunner'. 'Madame de Tartas' has the shape and soft colouring that was so popular in the Teas, and that carried over into the early Hybrid Teas. 'Catherine Mermet' is a very popular Tea from the 1860s. It refutes the claim that all Teas hang their heads: it has a very stout neck and always stands up straight in the garden. 'Nephetos' is probably the purest white of the Tea roses. It lives up to its name, Greek for "snow", as the foliage gets covered with mildew. 'Lady Hillingdon' is the closest of the old Tea roses to apricot. 'Souvenir de Pierre Notting' approaches the yellowest the Teas would ever get, but still has that slightly pink centre. 'Etoile de Lyon' is a bright yellow. It makes a large plant, easily six to seven feet tall and that much through.

In our garden, these Tea roses do very well in the spring. We have a very hot, dry climate during the summer, with no rain at all. They tend to grow and flower during the summer, but they don't really thrive. When the cooler night temperatures and cool days arrive, the Teas and Chinas take off and make a fabulous show. We'll often have our best bloom between Thanksgiving and New Year.

'Mons Tillier' has spectacular bloom, with every colour from purple-to-brick. It often quarters and has a green button-eye. A very satisfactory Tea

rose, it does not hang its head, and flowers in nice clusters. One of the late, and probably the reddest Teas is 'Freiherr von Marschall' (1903). There were never any really deep red Teas, although a few late ones approached red on the dark pink side.

'Susan Louise' is very late, but probably is a Tea. It could be classified as a hybrid gigantea. Its parents are the old 'Belle of Portugal' and a Tea. *Rosa gigantea* is a large climber, and probably one of the parents of the Chinas and Teas. Our bush could really be described as a tree. You need a twelve foot ladder, just to prune the middle part of the plant. It is very similar in shape and colouring to the 'Belle of Portugal'. One of the latest Teas to be introduced, 'Rosette Delizy' (1922), has amazingly good clean foliage. It is in one of the shadier spots in the garden and it very seldom has much mildew.

'Sombreuil' is a marvelous climbing Tea rose. Since many of the Teas hang their heads, that's great in a climber. On a pergola over your head, it drops the flowers right down at your face. It is a very popular exhibition rose now in southern California. 'Climbing Maman Cochet' is another rose that, because it hangs its head as a bush, makes a great climber.

Lastly, 'Champney's Pink Cluster' (1811) shows the influence the Chinas and Teas brought into modern climbing roses by an American, John Champney. He crossed a 'Parson's Pink China' with a once-blooming European rose, *Rosa moschata*, to produce a strain of repeat-blooming climbing roses that were completely new at the time - the Noisettes.

OLD GARDEN ROSES IN BERMUDA

Elizabeth Cooper and Peggy Nicoll - Bermuda

Bermuda is a small group of islands, 600 miles from Cape Hatteras, USA. The Gulf Stream gives us our temperate, semi-tropical climate, which with high humidity and relatively high rainfall, is similar to that of southeast China.

Earliest records show that roses were grown in Bermuda in 1639 and others were introduced in the mid 17th and early 18th centuries. So many have survived, that Bermuda has been called a living museum of roses. Roses have become so much a part of our island, that they are referred to as Old Bermuda Roses, and many have local names. Some of the so-called modern roses, the Hybrid Musks and the Polyanthas also do well and have become part of the Old Bermuda Roses.

'Souv. de la Malmaison', a beautiful Bourbon has been established in Bermuda for almost 100 years and is called the "Bridal Rose". It comes in bush and climbing forms. The bush is small and compact, with round buds opening into lovely flesh-pink flowers that fade to almost white as they age. The climbing form has smaller flowers. The sport of 'Souv. de la Malmaison' is 'Souv. de St. Anne's'. Its pointed deep pink buds open to

semi-double blooms that are a faint blush pink, opening flat to almost white.

Our best known rose, 'Agrippina' or 'Cramoisi Superieur', is a China. It has been around so long that it is known as the Old Bermuda Red Rose. It is very healthy, reaching six feet in the bush and up to fifteen feet as a climber. It is found all over the island, but is particularly prevalent in old gardens and in cemeteries attached to our parish churches. 'Archduke Charles' was only identified correctly in the late 1950s. Prior to that it was always referred to as "Seven Sisters". It blooms all year and produces dark red buds that open to rosy pink and crimson flowers, darkening with age. In Bermuda, practically all red roses are lumped together like the "Old Bermuda Red Roses". But 'Gloire des Rosomanes' or Ragged Robbin has very definite characteristics, including a strong fragrance. The semi-double bright crimson flowers have a rather untidy form. The large pointed buds of 'Le Vesuve' open to a full flower, with an irregular arrangement of petals. Its soft pink colour is tinted with lilac and is almost silvery at times. 'Old Blush' or 'Parson's Pink China' grows extremely well in Bermuda. This is one of the four old stud roses, that had such an impact on the rose world in Europe, when it was introduced. The flowers are produced constantly, in small sprays in two tones of pink, lovely to start, but loose when fully opened. 'Sanguinea' was known as "Annie Gray", after a local school teacher. She had a large bush, from which slips were generously distributed. It is extremely vigorous, growing to eight feet. The blooms are single and vary in colour from rose red to pink red to scarlet as they age.

We also have species roses. *Rosa bracteata* or Macartney Rose is called "The Fried Egg". It is a rampant grower with very prickly, distinctive dark green foliage, and single pure white flowers with bright yellow stamens. Two other similar roses are *R. laevigata*, the Cherokee Rose, and 'Mermaid', with its large yellow blooms. *R. chinensis mutabilis* is widely grown. It is very large with delicate foliage. The pointed orange buds open to pale yellow single blooms, which change to pink, and finally dark red. It flowers constantly, and when viewed from a distance, the blooms look like butterflies perched on the branches, *R. chinensis semperflorens* or 'Slater's Crimson China' is another of the old stud roses. It is very slow growing with dark green foliage and small red flowers. *R. chinensis viridiflora*, the Green Rose, is a strong upright grower with small green double flowers sometimes streaked with bronze.

Rosa banksiae banksiae, with lovely small double white flowers, and *R. banksiae lutea*, a lovely shade of yellow, are climbing species with delicate medium green foliage, that bloom once a year. Our last species is *R. roxburghii* or the Chestnut Rose, with its dark green foliage, dainty pink flowers and very distinctive buds.

'Pompon de Paris' is our only old miniature. It's small with dark green foliage and very small deep pink flowers.

Next come the Noisettes, such as 'Champney's Pink Cluster'. Its bright pink buds open to small blush pink flowers, fading to almost white.

'Lamarque' is undoubtedly one of the loveliest Noisettes, but, prefers a sheltered position and some support. The flowers are pure white, double, with quartered centres, and have a marked fragrance. 'Mme Alfred Carrier' is not too popular because it's so large, and its long canes tend to droop. The pointed, very pale pink buds open into loose double blooms of faint blush pink, fading to white. 'William Allen Richardson' is a vigorous grower with the usual untidy form of the Noisettes. The flowers are bright orange apricot, fading to a paler colour.

The Teas are the largest group of old garden roses in Bermuda. 'Anna Olivier' is a very vigorous with pointed buds opening to pale flesh coloured faintly yellow blooms, with slight touches of pink around the edges, turning a deeper yellow with age. 'Catherine Mermet' is five feet tall and spreading in form; pointed deep pink buds open to flesh pink blooms with beautiful form. A great favourite is 'Duchesse de Provins', one of the earliest Teas in Bermuda and known as the "Shell Rose". The cupped double flowers are soft pink. The third of the old stud roses is 'Hume's Blush Blush Tea-scented China' (*Rosa x odorata*). It is called the "Spice Rose" because of its delightful scent. 'Maman Cochet' is beautiful in fine weather, but its large pointed buds tend to ball in the rain. It is vigorous, with blooms in two shades of pink; it is also found in its white form. 'Mme Joseph Schwartz', only recently correctly identified, is a compact bush with double blooms of soft pink, fading almost to white. 'Mme Lombard' is one of our best known Teas: bushes are found in many out of the way and forgotten places. It reaches quite enormous size, with long pointed buds opening to double blooms in two shades of pink. 'Mrs. B.R. Cant', another oldtimer, is a six foot bush with the usual pointed Tea buds, opening to round blooms, double, slightly cupped, in shades of dark pink. 'Mrs. Dudley Cross' is almost thornless, with pointed buds opening to cupped loose flowers of pale yellow, tinted pink on the outer edges. Its colour differs greatly depending on the season, making it difficult to identify. 'Papa Gontier' is one of our most popular Teas because of its long lasting qualities when cut, its strong stems and upright heads. Long pointed buds open to semi-double blooms of dark rose pink, almost red, with beige streaks, fading with age. The bush reaches at least eight feet. 'Rosette Delizy' grows into an enormous bush, almost a tree. The pointed buds open to medium double flowers in shades of yellow and deep pink. 'Safrano' has pointed apricot buds and is beautiful when half open, but quickly blows into loose, semi-double blooms. 'Sombreuil', a lovely old climbing Tea, has round pink buds that open into flat pale pink flowers, fading very quickly to white, with a beautiful arrangement of tiny petals. 'William R. Smith' sometimes don't open in wet weather. The large flowers are delicate cream, with faint pink edges. It is often confused with 'Baronne Henriette de Snoy', which has deeper pink outer petals.

'Albertine', a large flowered climber, is slow growing, taking about five years to establish itself, after which it will grow to incredible proportions. The very fat round buds open into loose double blooms of vivid pink.

'Alberic Barbier', a vigorous Rambler, can be found all over the island. Its dark green glossy foliage is quite distinctive, as are its creamy buds, which

open into loose, pure white blooms. 'Veilchenblau' is another popular rambler, with clusters of small violet flowers.

The Hybrid Musks do very well in Bermuda. The double flowers on 'Buff Beauty' are a pronounced apricot. 'Cornelia' can be a bush, although it sends out very long canes. It has delightful clusters of small coral pink buds, which open into pink flowers. 'Felicia' is a bush or a climber with deep coral buds opening to fragrant light coral pink flowers that fade as they age. 'Kathleen' has very delicate foliage and sprays of small single pink blooms. 'Penelope' is a slow grower with flowers in small clusters at the end of the branches. The pink buds open into pale pink blooms tinged with yellow. On 'Prosperity', pink buds open into clusters of small white double flowers. 'Wind Chimes' has dainty foliage and shocking pink flowers with white centres. This rose lasts well when cut and is very popular.

We also have Polyanthas, 'Cecile Brunner' the Sweetheart Rose, is found in bush or climbing form. It is small, with sprays of perfect Tea shaped little pale pink blooms. 'La Marne' has dark green glossy foliage and vivid pink flowers with white centres and yellow stamens. 'Little White Pet' is a very low spreading bush, with sprays of double pure white blooms from tight little bright pink buds. 'Perle d'Or' is probably the most spectacular of our Polyanthas. It may get to six feet and has enormous sprays of apricot pink flowers. 'The Fairy' is another low growing bush with full small pink flowers in large clusters.

In Bermuda, our mystery roses, roses whose original name is unknown, are the most interesting. Each year since the Rose Society was founded in 1854, we have tried to get them identified by visiting rosarians. We have been successful with some, but many are still a mystery. We call them by local names: 'Brightside Cream' needs a lot of room, very much like a Noisette. It needs support. The flowers appear in clusters with short stems, opening to loose semi-double blooms, a soft creamy colour, fading to white. It blooms all year. 'Carnation' has frilly edged petals. It is five feet high. The flowers are borne both singly and in sprays, and open semi-double. It's a very pronounced shade of deep pink, tinting to purple. Its dainty foliage is pale green and small cupped flowers are either pure white or white with a bright red streak, or a deep shade of pink, or a deep red. They all appear on the bush at the same time. 'St. David's' is obviously a China. Someone suggested it could be 'Fabvier', but the petal count is not correct. It is very compact, with dark green foliage. Its flowers are dark red, semi-double, with a white centre and very distinctive stamens. "Trinity" was found growing at Holy Trinity Church. Luckily, slips were taken, as the original bush has since died. It is a vigorous grower, reaching six feet. Pale pink pointed buds open into loose white blooms with fuzzy yellow stamens. Another unknown Hybrid Perpetual was originally called the "Cabbage Rose", and later misnamed *Rosa centifolia*. It is a slow growing awkward bush with dark green foliage and very fragrant dark red velvety blooms produced all year round on short stems. 'Vincent Goddard' is undoubtedly a China. It is upright and compact, reaching three feet, with dark green foliage. Its blooms are cupped, semi-double, deep pinky red, with almost luminous quality to them.

OLD FASHIONED ROSES

Mike Lowe - USA

I am a collector of old roses. We have about 500 varieties in our gardens and we sell about 400-500 of them from our catalogue. I want to tell you about some roses we discovered in Europe last year, that are not on the market. I'm hoping to have all within two or three years.

We flew to Paris, France, and first visited Bagetelle. They had two Portland Hybrid Perpetual types, 'Rose Poncheaux' (1866) and 'Yolande d'Aragon' (1843). We also saw 'Miranda', another Portland. (It was mis-marked there as 'Rose de Rescht'). For us who live in the north, the Portlands are absolutely hardy and all repeat well.

Next we went to Roseraie de l'Hay. There was a bed of 250 Hybrid Perpetuals, some of which I haven't been able to verify yet. Everything we have has been verified through books and old illustrations. The best way to identify a rose is by the introducer's original catalogue. We are able to do that, because the Massachusetts Horticultural Library has probably the best catalogue collection, other than the Library of Congress, in the world. We saw 'Anton Ducher', a Hybrid Perpetual (1866). 'Marbree', a Portland (1858), 'Alsace-Lorraine', a Hybrid Perpetual (1879), and 'Andre Leroy d'Anger', a Hybrid Perpetual, (1866). We also saw 'Alphonse de Lamartine', a Hybrid Perpetual by Ducher (1853). (That means it's eligible for Dowager.) 'Albert Paye' is a Hybrid Perpetual of 1873 and probably one of the loveliest I have ever seen. 'Madame Recamier', a Hybrid Perpetual (1889) was introduced by Guillot. 'Paeonia' looks like one, too. It's a Hybrid Perpetual (1855) introduced by Lacharme. We also saw 'Madame Cristin' (1862) and 'Damaizin'.

What is grown at Roseraie de l'Hay as 'Gloire de Dijon' is much darker yellow than I've ever seen. This leads me to believe that theirs is the right one and we might have 'Bouquet d'Or' as our 'Gloire de Dijon'. It is different only in the colour intensity. I've asked them to send me theirs, to see if it fades out when I grow it in New Hampshire.

There is a lovely little one, almost like a dwarf, called 'Bouganville', a Noisette of 1824. The best find there was 'Victor Verdier'. It was either introduced by Lacharme in 1859 or Dorieux in 1851. I think Dorieux introduced it and Lacharme reintroduced it. It's really the first Hybrid Tea. It has Bourbon-Hybrid Tea foliage and is high centered. It's extremely tender, and that's why it's been lost. It's also the parent of 90 percent of all our modern Hybrid Teas.

From Paris, we went to Denmar and the Garden of Hugo Lakee. His collection is one of the most beautiful in the world. He has 900 different varieties of roses and also sells roses. He has, in effect, recreated Roseraie de l'Hay in his garden. He gets most of his roses from Sangerhausen, East Germany, which has the largest collection of old garden roses in the world. He has 50 Bourbons, where the most anyone else has is about 15. He has

'Madame de Savange', a Bourbon (1874), introduced by Moreau & Roberts, and 'Souvenir de Victor Landu' (1890) also by Moreau & Roberts. It's probably the most beautiful Bourbon. Another Bourbon was 'Robusta' (1875), introduced by Soupert. That is going to raise some problems, since there is a new modern rose called 'Robusta'. It was in the catalogue of Dingee and Conard in the United States, as early as 1883. 'Amadis' is a 'Crimson Boursault', as is 'Mme. Sancy de Parabere'. It has no thorns. It was introduced by Laffay in 1829, and it's listed as a Large Flowered Climber. It's another one we have a classification problem with. 'Marie de Blois' is a Moss (1852), introduced by Robert, before it became Moreau & Roberts. It is recurrent.

Hugo has a huge collection of striped roses, probably about 25, and all identified. One is 'Mme de Hebre'e', a Centifolia, 1857, introduced by Pradel. I have no record of 'Hypathia' except its name, but it was very beautiful. Another one I can't find any record of is really a pinkish slate 'Charles de Mills' called 'Louis van Tyle'. 'Anais Segalas' is a Gallica (1837) and 'Rosa Mundi II' is a Gallica/hybrid Bourbon by Vibert from 1835. The identification comes from William Paul "The Rose Garden", 1st edition.

I saw the 'Four Seasons Damask' and 'Four Seasons Moss' blooming on the same flower at Roseraie de l'Hay. It actually has moss on one side of the flower and no moss on the other side.

Then we travelled to England and saw Keith Money's garden. He has 'Assemblage de Beantes', a Gallica (1823). 'Nanette' is a dark purple Gallica. That's all the information I have on it. I saw it twice, once in Hugo's garden in Denmark and once in Keith Money's garden in England.

From there we went to Castle Howard. It has a three acre rose garden run by Jim Russell, who is probably one of the best experts on old garden roses. He doesn't get out much anymore, but he has a marvelous collection. He has 'Neron', a Gallica, 1841, by Laffay, and one a lot of people have been looking for, 'Mme Criout'. It's a striped Tea, also classed as a Hybrid Perpetual (1902), 'Irene Watts' is a pretty China (1896) by Guillot. 'Pride of Reigate' is a Hybrid Perpetual from 1884 that has both stripes and spots. 'Mme Andre Leroy', a Hybrid Perpetual (1864), has beautiful quartered blooms. Another Hybrid Perpetual, 'Le Havre' (1871), was introduced by Udes. 'Queen of Bedders', a dwarf Bourbon (1871), appears in an excellent illustration in one of the early books. 'Ferdinand de Lesseps' (what a horrible name for such a beautiful rose) is from 1869 by Eugene Verdier. 'Slio' is one I keep getting and losing. Actually, it's been in America for quite a long time; it's just hard to get. 'Moulin Rouge' has no identification other than it appears to be a Gallica. For those who like Tea roses, 'Mme Jules Graveraux' is a climbing Tea (1901). Soupert et Notting was the introducer.

They've just reintroduced 'Blairii No 1'. Everyone's seen 'Blairii No 2'. I have a huge bush of it, which gives me three flowers every year. We have "General Jack" back again after a long absence. We had something that had

a fading purplish bloom. I think it was probably 'Gloire de Ducher'. The true "General Jack" doesn't fade at all.

'Eugene Furst', which is in my collection, was identified. It's a Hybrid Perpetual of 1876. It's in the *Fournal de Roses*, 7th month, 4th plate of 1883. This is how we identify them. We've got something to look at. 'Empereur du Maroc' is in *Paul's Annual* of 1859. 'Duchess of Sutherland', a Hybrid Perpetual, is from Curtis' *Beauty of the Rose*. He is the best botanical illustrator, because he always gets them right. The problem is that he did a lot of his illustrations in the greenhouse, and the colours are slightly off. If you take the roses into a greenhouse, you will find that the colours are exactly right. 'Eliza Boelle' is a Hybrid Perpetual x Noisette. It was introduced by Guillot in 1868 and shown in *Le Livre d'Or des Roses* (1903).

MODERN SHRUB ROSES

Michael Gibson - England

Modern shrub roses: What does that mean? A modern shrub rose is one that has come into existence since 1880, since the advent of the hybrid tea. This does bring in a few of the roses which have been associated with the old roses, roses like the rugosas and hybrid musks, which are quite clearly now, modern shrub roses.

'Ferdinand Pichard' is a hybrid perpetual, considered to be one of the old rose groups, but it was introduced in 1921. So, what do we do? I suppose the answer is that roses don't read the rules and regulations we make for them, and they get out of sequence. This is one of the them: a modern shrub rose with the old shrub rose name.

The rugosas were considered old roses but are now modern shrub roses, under the new classification. The original rugosa is a species, a wild rose. The ones that we grow in our gardens are hybrids and are very clearly modern garden roses. Some are not too far removed from the old roses, such as *Rosa rugosa rubra*. All the single rugosas have large hips in the autumn and they make wonderful hedges. They have very healthy foliage, at least in England. Allen Paterson of the Royal Botanical Gardens, Canada, says they have trouble with the foliage in the spring here. It turns a bit yellow. In my experience, the foliage never gets any disease, which is a wonderful asset. They are recurrent. The most suitable single one for small gardens has two names, 'Fru Dagmar Hastrup' or 'Frau Dagmar Hartopp'! It won't grow more than four to five feet. 'Fimbriata' is also a pretty small one. It is rather unusual and you don't see it around very much. It is sometimes known as Phoebe's Frilled Pink or as Dianthiflora. It was raised in 1891.

The Grootendorst hybrids have frilled edges. 'Pink Grootendorst' takes a lot of room. 'Blanc Double de Coubert' brings white coloring into the rugosa family. It is inclined to be a bit leggy, so it's not the best choice for hedges. A real beauty is 'Roseaie de l'Hay: it is dense with foliage right

down to the ground. The last two mentioned are double and so have no hips in the autumn, but they are recurrent flowering.

The other family is the hybrid musks. They were raised by an English clergyman named Joseph Pemberton early in this century. Although they are called hybrid musks, their relationship with the musk roses is a very tenuous one. Pemberton is sometimes blamed for calling them hybrid musks, but I believe it was Courtney Page, Secretary of the Royal National Rose Society in those days, who invented the name. Pemberton introduced them, strangely enough, as hybrid teas. They certainly are not hybrid teas, in any shape or form. In the hybrid musk history an important rose is Trier, raised by Peter Lambert in Germany. Pemberton crossed hybrid teas with it to produce a lot of his most successful roses. 'Moonlight' is one of his early ones (1913), 'Fantasy' is another. It is not really dense enough for a hedge, as most of the hybrid musks are. It is a bit straggly, but it has lovely flowers. 'Cornelia', on the other hand, will make a very nice hedge; it is much more compact. So will 'Penelope', a creamy white. It will also make a good specimen shrub. Hybrid musks have been quoted over the years as being recurrent, that you get as many flowers in the autumn as you do early on. I don't think this is altogether true. They are recurrent, true. But without deadheading you don't get a complete repeat bloom. If you have a bush with so many flowers on it, deadheading becomes rather difficult to do.

'Buff Beauty' actually is a bit of a mystery. Although it is considered a hybrid musk it wasn't introduced by Pemberton. It appeared mysteriously in 1939, possibly a hangover from the Pemberton era. 'Felicia', on the other hand, is certainly one of his and can be used for making hedges. They are roses which grow in a pretty undisciplined way, tending to send out long shoots in inconvenient directions. If you want to control them, train the canes along wires strung between uprights. Tie the shoots in fairly early, because they are stiff and if you leave them too long they will be difficult to manage.

Many of the modern, not too vigorous climbers, such as 'Golden Showers', can be used as a free-standing hedge. At the other end of the scale, and I am not quite sure whether it is, strictly, a shrub rose or a polyantha is 'The Fairy'. It will only grow to about two feet and is recurrent. It was introduced in 1932 by Bentall, who was on the staff of Pemberton's Nursery. He also introduced 'Ballerina', much the same size as 'The Fairy'. Both make lovely hedges. It is rather interesting, that in the same year, Peter Lambert produced 'Mozart', which is very similar to 'Ballerina', but slightly darker in colouring. 'Yesterday', by Jack Harkness, could also be classified as a polyantha or a modern shrub rose. The dividing line is a little bit hazy.

Another category of modern shrub rose, is the type that is closely linked to the wild roses. They are not very far down the tree of evolution. They are roses which have been raised by crossing a wild rose with a modern one. One of the best known of all is 'Frühlingsgold', by Wilhelm Kordes of Germany. He produced a whole line of these roses. They are almost wild roses. They come from the old Scotch rose family, the *pimpinellifolia*.

'Fruhlingsgold' has great arching branches. But the American-raised 'Golden Wings' will fit in anywhere. It was raised by Roy Shepherd, the author of *The History of the Rose*, a standard American work on rose history. Again, it has a Scotch rose in its parentage. It's not too far removed from a wild rose, but it's recurrent. It keeps flowering right through the summer and it is scented. To my mind, it is one of the most beautiful there is. So also is 'Nevada'. It almost has more flowers than it knows what to do with. It certainly is the most prolific. Its pink sport, 'Marguerite Hilling' is not completely recurrent, but you do get some flowers late in the summer. You have to allow twelve feet all around, because it gets to be a pretty big shrub.

Another one, fairly closely related to a wild rose, is 'Cerise Bouquet'. This comes from *Rosa multibracteata*. Most people think it is from Kordes, but he hotly denies it. I don't quite know why. He says it's from Tantau. One of its parents was our old favourite, 'Crimson Glory'. This is a great rambling shrub that needs a lot of room. More restrained, but still fairly close to the wild rose is 'Fritz Nobis'. This comes from 'Lucy Ashton'. You don't see it often, but it is closely linked to *Rosa rubiginosa*, a wild species. It is not recurrent, but a very beautiful shrub, and not too big for most gardens.

Except for the rugosas and the hybrid musks, the further away you get from the wild species, the better is the recurrence of bloom. Something more modern is the big range of German shrub roses, all recurrent and mostly raised by Kordes. They are very hardy, which makes them of interest to a Canadian audience. A lot of them are red. 'Kassel' is a very typical one. They make pretty big shrubs. 'Lavender Lass' is modern, but its flower form goes right back to the old ones. It needs some support although it has very strong canes. It has huge heads of flowers that get bowed down to the ground after a shower.

'Joseph's Coat' is a sample of a modern, reasonably sized shrub or climber. It is recurrent and you can use it either way. 'Mountbatten' and 'Goldbonnett' are examples of tall growing cluster flowered roses. They are not shrubby, in that they don't carry their flowers at all levels. They tend to be upright and flower mostly in trusses at the top, which is useful in its place; similar to 'Robusta', which I believe is a rugosa hybrid, although it doesn't look anything like one. It hasn't got the rugosa leaves nor the rugosa habit. 'Iceberg' is a very good example of one which carries its blooms at all levels. This has enormous advantages.

The price of a rose is in a catalogue,
but the value of a rose is in one's heart.

... Wilbur C. Munnecke.

MEIDILAND ^(R) ROSES FOR GREEN ARCHITECTURE

David Gilad - Israel

It is time to call attention to roses that are not the most popular types. I was brought up to love hybrid teas, and still do, but besides these beauties, the genus *Rosa* has more to offer. Hybrid teas and floribundas each represent but a tiny and stereotyped part of the bounty offered by the genus. Part of the overriding enthusiasm for these two groups can be put down to commercialism. They have been pushed so much, that many rose lovers have no idea of the other types of beauty available, and the satisfaction that can be derived from getting to know the genus as a whole. From my own point of view, I find that the more roses I know, the more I appreciate them.

I have joined the Meilland family, the rose breeders and creators of some of the finest roses of the last one hundred years, hoping to be able to disseminate their work and to awaken interest in the new types created by them. I believe we shall see in the future, roses planted on a large scale along roadsides, highways, roundabouts, industrial parks, airports, and in any other situation where low maintenance costs are required, places in which we have never seen roses before.

The Meidiland ^(R) Roses for Green Architecture are comparatively new varieties, and don't owe their derivation directly to the old shrub roses. Their parentage and characteristics are extremely diverse. They are the result of deliberate crosses, and it is interesting to find in their ancestry different groups, classes of hybrid teas and floribundas, as well as old roses and species. That is why they will be a heterogeneous collection, having diversified growing and blooming habits. The Meidiland Roses are very different from classical roses and are not intended for traditional rose gardens. They are unchallenged as woody summer flowering shrubs and some are everblooming. All are excellent, strong, healthy plants, suitable for wild gardens and nature reserves, banks bushes, and hedgerows. In regions where winter temperatures are low (-12°C) they have so far survived, but it is too early to say they are frost resistant yet. On the other hand, they are well adapted to the milder climates of southern France, Switzerland, Italy, Spain, as well as sub-tropical Israel. They are grown on their own roots, and have been carefully selected for disease resistance. They may require some care early in the season to maintain proper foliage, and irrigation is essential in the long summer months. But with drip irrigation, there is no limit to where they can be planted. They will do well on slopes or other places where grass grows, and is green all year long. Here they will hardly need any irrigation or special care.

Let's try to arrange them into groups having more regard to horticultural use and effect than to botany:

First there are the ground-cover type of plants, which may lay flat on the ground or have an arching type of development. Both are suitable for wild gardening, covering banks, or flinging over stumps and stone walls. There is no need to tend them like other kinds of roses. One or two plants

per square metre will cover the ground with a dense canopy, which will restrain weeds and hide rubbish. Let the plants grow with no pruning. After several years, renew them by slaughtering them (pruning shears are forbidden). Just use a road trimmer at a level of 20 cm above the ground without affecting the life of the plants.

The second type are upright and dense, suited perfectly for hedgerows or large mixed beds. They are spring flowering shrubs and the mature plants also provide a flash of autumn colour. Those used for hedges must be trimmed, top only, once a year at the end of the winter. This pruning has to be done mechanically with hedge cutters or heavier machinery.

For a spring treasure and a year-round unusual plant, nothing can match 'Ferdynand',^(R) (var. KEITOLI). This is an arching plant, 150 cm high, and covered in spring with thousands of empire-pink flowers. Just let the plant grow - no pruning required. It can stand on its own or be planted in a border. Another example is 'Bonica'^(R) 82 (var. MEIDOMONAC). It is truly an everblooming shrub of light pink rose, that can be adapted as a hedgerow (north-south direction) or as a ground cover. It will bloom all summer long and will be covered with decorative hips into the winter.

In summary, Meidiland^(R) Roses are roses of a new type and concept, with very elegant ideas to solve some landscaping problems, in a very economical way. I believe that with these new Meidilands, roses will stand a better chance of surviving into the future, ready for the next change in fashion. We can expect to see roses grown in places where they have never been grown before, and they will surely change the poor image of the rose in the landscape business.

We invite you to see some of these new ideas and varieties demonstrated at Meilland's Saint-Andre Experimental Estate at Cannet-des-Maures, France. And in the near future, they will be in many other areas and countries.

Would Jove appoint some flower to reign
In matchless beauty on the plain,
The Rose (mankind will all agree)
The Rose, the Queen of Flowers should be.

-Sappho, c.600 B.C.
(from "The Book of the Rose" by
A. Foster Meilliar, 1894)

CONTAINER GROWING OF ROSES

Ludwig Taschner - South Africa

It's very easy to keep roses in pots, because the root system rejuvenates its fine hair roots. However, roses do need light. In South Africa, we coined the phrase "Sun Spot roses", meaning that a rose in a pot must be in a sunny spot. You can't yet grow a rose inside without direct light. Even if you can keep it growing, it will not flower. But, growing roses in containers has been done over the centuries. The old Romans and monasteries grew roses in containers very successfully. Today there is a revival in growing roses in containers.

Today, the growing medium is not soil. You buy it in any garden centre already mixed, in proportions of sand and soil and peat moss, with a slow release fertilizers in it, to give the rose a good start. Use systemic insecticides and fungicides. But you must water the plants. Rainwater will never be sufficient. In hot climates like South Africa, we say water them every day. This can be done by a drip system.

The pots available are unlimited, from old tins to oil cans, to beautiful wooden drums, plastic containers, and asbestos. Asbestos pots are very popular in South Africa, because they are relatively cheap and you can get them in all different shapes and sizes. The range of rose cultivars has also become unlimited. You can use some of the Heritage Roses such as 'Little White Pet' or 'Old Blush', but many of the modern roses are really well suited to growing in containers.

Why actually grow roses in a pot when they do so well in the garden? There are certain areas where you can't have a garden, because it is all rock or your soil is not right. I have seen gardens in the desert areas of South Africa, where you can grow nothing, but the whole area around the house is filled with drums growing fantastic roses of exhibition quality. And today, you find that people try to bring the garden into their home. They have patios, sunroofs, etc. because they want to live in the garden.

Of course, you can grow any rose in a pot or a container, but best suited are the miniatures. They flower well, have pretty blooms and smaller leaves, and they make much tidier plants than the bigger hybrid tea roses. You can put several plants in one pot, and you can grow them in hanging baskets. Miniature standards are very good because you can put other plants under them, like trailing begonia, petunia, or lobelia.

We find that 'Anita Charles' by Ralph Moore is one of the toughest roses we have. It never gets any disease and it forms a beautiful, round plant. Even the old blooms last very well in the sun. (I am talking about 110 - 120°F and 30% humidity.) 'Andrea' will weep right down to the ground and be full of blooms. One of our top sellers is 'Climbing Cocktail' from Meilland, because it never stops flowering. 'Joan Austen' is good because it remains compact, doesn't get diseases and is always in full bloom. It has very short stems, and is one of the nicest stripped roses from Moore. One of the new stripped roses from Ralph Moore, was 'Painter's Palette'. It grew

into a small shrub. It is stripped, with variations from cream to red, and white, and it has moss on it. (Because it is always better to have a name for a group, we've called these miniature shrub roses "midinette roses".) 'Lynne' remains very low and grows sideways. If you plant it in a pot, it will hang over the edges. You can put it in a relatively small pot, and it will flower all the time. It is one of the best yellow miniatures, and it keeps its colour very well.

In Europe they are trying to sell miniatures in pots as indoor plants. I, personally, don't believe that is the right way to go, because roses have a very short lifespan indoors, without light. But they are moving millions and millions of plants. They say that a rose in a little pot is cheaper than an arrangement from a florist. Besides the Meillands, De Ruijters in Holland is also very keen on these potted roses. He coined the phrase "rosamini" and the little bigger ones are "minimo". The Meillands call theirs "Meillandsinas". Some of these have so many blooms, you can't see the foliage.

Miniatures can be grown on their own roots or budded. After a certain period of time, there is no difference in growth with us. We grow about one half million plants, all in containers. It takes us from 3 to 6 months from inception, to sell a rose. We have about 500 varieties. Today, about 80% of the public in South Africa won't buy a rose unless it has a flower on it. The quality of the plant is equal to bare root roses, as to stems and hardiness.

Of course, not only the private gardener uses roses in containers. Most of the breeders today keep their mother plants in pots to pollinate in them, because they can quickly bring fresh mother plants into the greenhouse. It gives them a lot of versatility. Most of them use a drip system, so they get the roses automatically watered. They believe they get a better ripened hip, growing in a container, than a rose growing in the field. At Kordes in Germany, all the mother plants are in pots. At their miniature testing house, the seedlings are transplanted from flats into pots and about 6 weeks later they flower, and they can quickly test if there is any worth in them.

The cut-flower growers are also growing roses in containers today. Most of Israel's roses are in pots. With drip irrigation, they grow the most fantastic quality in these little pots. They grow roses hydroponically as well.

Questions:

Q. What is the soil mixture?

A. Any plant in a pot needs a very well aerated soil. River sand, peat moss and bark mixtures are the best components. In most cases, soil is left out completely. In America, you can buy Osmocote, a slow-release fertilizer. Mix into your soil before you plant and then you only need to feed once or twice more a year.

Q. Do you add any trace elements?

A. No. Whenever we spray for diseases, about every second week, we add trace elements to the foliar spray.

Q. Is there any better size of container for a hybrid tea rose?

A. No. The size of the container will determine the size to which the plant will grow. For a hybrid tea, the minimum top diameter should be about 15 inches. It should be deep enough to store water.

Q. How do you overwinter them?

A. In South Africa we keep them growing almost all year. In very cold climates, put them under a roof or in a basement.

Q. Do you water them all winter or do you just let them go dormant?

A. I don't know, but I would not let them dry out completely. Water them at least every second week if you keep them in winter storage.

Q. How long can a rose be kept in a pot without changing the soil?

A. I saw a lot of roses growing in Israel that had been in small pots for 6 years, for cut flower production. We have some plants growing in the same pot for almost 12 years.

Q. Can you mix a slow release fertilizer and a water soluble fertilizer?

A. We are not very happy with slow release fertilizers in South Africa, because they don't work too well in hot sun. They release nitrogen twice as quickly as recommended, in that heat.

CONTAINER GROWING OF ROSES

Tim Bucknell - Canada

At White Rose Nurseries we grow between 300,000 and 400,000 roses mostly in the field. We also container-grow roses. We are not experimenting: all our other nursery stock, evergreens junipers, shrubs and fruit trees are grown in containers. We have been doing this for about 15 years, so we have acquired a fair bit of experience.

The rose isn't easy to grow in a container, because you lose some of the heavy "wooded" quality that people like. But we have found that container-grown roses, because of their root ball, are a lot better for transplanting. The big problem with bare-root roses is transplant shock; a container-grown plant will take the transplanting a lot better.

One of the important things about container-growing is the soil. We use about 14,000 cubic yards of soil per year. By soil in this context, I mean pure hardwood sawdust. We went to sawdust because it is a cheap commodity in Ontario. It has to be composted, and that is one of the big secrets. In its fresh state sawdust will use tremendous amounts of nitrogen in order to break it down, with ammonium nitrate. After it has been composted, a screener is used to take out all the large particles. We do this because we use potting machines, and they do not like large chunks of wood. At the same time we add a complete fertilizer, our 12-4-8 Iron Plus with magnesium, as well as trace elements and superphosphate. Just before planting, we add urea formaldehyde, another slow release fertilizer. This is

not so much for the benefit of the plant but because the compost, after 8 months, still needs a lot of breaking down. There has been mention of "Osmocote", earlier. We find that it isn't suitable in our cold climate. We get sudden warmth in the spring, and it releases nutrients quickly, but we think it is also important to harden roses off, when fall arrives.

We grow our *Rosa multiflora* understock from seed. We pot the seedlings into 2-gallon containers, in this complete sawdust mix. About a month after they have been potted in the spring, they begin to break out. We place them in open beds, with overhead sprinklers instead of drip irrigation.

Of great importance when planting wild roses for budding, is to have them high up in the pot. The pot is filled right up with soil, so there is no moisture retention in the top. It is the same principle as in the field: we like to plant really high in the field, to secure a nice clean neck on the rose. So, when first planted, you have to wet them down, perhaps every two hours, until the roots begin to take. Roots are trimmed too, so there isn't much root going into the pot. High potting is very important especially for later in the winter, after the budding. If the rose sat deeper in the pot and the soil froze, one of those freak days in January when it thaws, water would form in the pot. Water will do more damage than a temperature of -40°.

We have a very crude and simple budding table. It is just a few 2x6s knocked together, and the men stand behind it to bud. In the field, the roses are planted about 6 inches apart: a good budder can do 2000 to 2500 in a 10-hour day. With this pot budding method, budders are slowed down, because one cannot bring or take the pots away quickly enough. Every rose has to be put on the bench individually, budded, have the Speed-easy bud-tie put around it, and then be moved back to the greenhouse. The production per budder is usually about 1000 per day.

The roses go into coldframes and spend the summer there. In winter the frames are covered with plastic. Pots are on a gravel base: this aids the drainage, cuts down weed growth in the container area, and also acts as a root pruner.

One of the reasons we like this 100 percent sawdust compost is because, with overhead irrigation, in a dry summer we can irrigate for about two hours each day. The sawdust has a total porosity of about 66.9 percent; the air porosity is 30.5 percent. Air porosity is the amount of air which will be left in the pot when the water goes through. That gives a water retention of about 36.5 percent. You want it to be between 30 and 40 percent: above 40 percent you get problems, especially with roses. On the other hand, a certain amount of water retention is essential, otherwise too much fertilizer leaches out of the pot. For deciduous trees, which are in the nursery for a longer time, you want a more stable mix. With roses we are looking at about 3 years after seeding, before they go to the garden centres. This compost is adequate for such a length of time.

Between May 23 and June 21 the roses receive 1.38 lbs. of actual nitrogen per thousand square feet, based on a water soluble fertilizer of 24-8-16

analysis. That's quite an amount of nitrogen. We try to push in about 1 to 1½ lbs. of nitrogen per 1000 square feet per month for maximum growth. If you want to grow plants in hardwood sawdust, watch out for the potassium because it naturally has a high potassium content.

We pinch the rose back in its smaller state, and once again if necessary, so we don't get too much breakage in handling. A lot of the roots will break out of the side and bottom of the container in this sawdust mix, but we also get a lot of white root hairs distributed all through the pot. It is easy to pull the plant out for transplanting and the rootball will not disintegrate.

The roses on display at this convention were identical to the container stock grown for our garden centres. We didn't do anything special with them, except take them into a greenhouse to make sure that we timed the blooming period correctly.

Our last effort is getting them to our twelve garden centres in the Toronto area. The cycle is completed when they end up in a garden, where we hope they will grow forever.

Questions:

1. If you are watering overhead, what about blackspot?

A. With overhead watering you don't gain much in disease control and you really have to spray for mildew control. We use Phaltan, Benlate, Funginex. With drip irrigation, you don't get powdery mildew and blackspot so much, but you do get spider mites. If I had the choice between the two, I'd much prefer mildew.

2. At what temperature do you keep your coldframes over the winter?

A. The temperature varies, but rarely goes below -5°C. We double-stack the roses and put the plastic right over them. Then we put plastic over the entire coldframe. Ice crystals form on the inside plastic and keep the temperature rather moderate, even when the outside temperature goes down to -10°C. We find a 10°C differential between inside and outside temperature readings, even on the coldest days.

Spread the table with roses!
I don't like idle hands -
Hey, eagerly let us raise
and empty the chalice!

Horace, c.100 B.C.

ROSES AS BONSAI

Dr. Toru Onodera - Japan

Bonsai is spreading throughout the world. Roses are also enjoyable as bonsai. The procedures of planting roses as bonsai, as done by the Itami Rose Nursery, are explained below.

Bonsai planting extracts the beauty of a plant or wood in nature and puts it into a limited space. From antiquity, bonsai has been valued in Japan and China as an art form that expresses the breath of Mother Nature in a pot or planting tray. Recently it has become widespread in Europe and America, along with Ikebana, the Japanese style of flower arrangement. At the heart of both these arts lies a sincere wish to express Mother Nature, and it is this element and not just the craft itself, which attracts many people. Looked at in this light, there is no ultimate end to arrive at in these fields.

Roses used in genuine bonsai of old were wild roses, used for their expression of strength, beauty of foliage, tree shape and hips. It is only in the last decades that the skills of Japanese rosarians have been applied to using modern roses for bonsai. At present, miniatures, including climbing ones, are used for bonsai because of their strength, floriferousness, recurrent habit and size. It is thought that cluster flowered (floribunda) varieties will be used in the near future, and perhaps later, large flowered (HT) types will also be used.

Rose bonsai plantings, especially those of high plantings with long roots have become very popular in Japan in recent years. A high planted bonsai with long roots is usually planted mounted on a piece of rock or aged hardwood. The sturdy beauty of trunk and root are esteemed, and harmony with the container or tray becomes valuable.

A young rose plant is grafted by cutting in January, and planted in March in a vinyl pipe to force the roots to grow long. The diameter of the pipe is approximately 10 cm and the length is 40 cm. Four holes of 1 cm diameter are placed at three equidistant levels of the pipe for drainage and for air absorption into the soil in the pipe. The pipe is filled with light soil and the young plant is placed on top in early spring. The planted pipes are placed directly on the ground, packed tightly together. After two years, roots have grown down the full length of the pipe, and plants are removed by cutting the pipe in half.

The plant is then planted in a flat tray, secured to an old stub in the tray, by a thin wire. Only the very lowest parts of the roots are planted in the soil. The preferred planting mix is 20% garden soil, 30% granular loam, 40% bark compost, and 10% peat moss. The soil is renewed every two years, at which time the mounting material can also be changed. After planting, the exposed parts of the long roots are covered in sphagnum and netting to protect them from excessive drying. This protection is kept until the next spring - from then on they are watered and fertilized like normal potted roses.

When the roses are mounted on rock or other material that is not so high or slender, they do not need to be planted in pipes to establish long roots. They can be established in about three years and show another kind of charm.

(Slides were shown of a 3-year old plant of 'Orange Meilandina' in a 16 x 22 cm tray, 3 cm deep; a four year old 'Yametsu- Hime'; a twenty year old 'Marilyn' in a 40 x 8.5 cm tray; a five year old 'Baby Masquerade' in a 19 x 25 cm tray; a seven year old 'Lavender Lace' mounted on an old hardwood piece; a five year old 'Pink Starina'; a seven year old 'Over the Rainbow'; a five year old 'Rise n' Shine'; a seven year old 'My Valentine'; a four year old 'Baby Cocktail', and 'Snowdrop'; a thirty year old 'Cinderella'; a twenty-two year old 'Starina'; the climbing miniature 'Pink Spray', used in an upright form, and 'Nozomi', as well as others.)

The name 'Nozomi' is taken from my niece, who died at the age of three years. Her father came to Toronto to serve as a priest, and for the last thirty years has been a Reverend Canon. He still lives in the suburbs of Toronto. I am rather surprised, or I should say astonished, as well as gratified that 'Nozomi' is loved throughout the world.

For if I wait, said she
Till time for roses be,
For the moss-rose and the musk-rose
Maiden-blush and royal-dusk rose,
What glory this for me
In such a company?

Elizabeth Barrett Browning

MICROPROPAGATION

Jack Christensen - USA

Micropropagation is a laboratory technique, for the relatively rapid increase in the number of plants available. There are other advantages to it, but the main one is that we are able to start with virus free plants and ensure that they remain virus free and clean.

This technique begins with the introduction into the lab of a small piece of plant material. In our case, we begin with the bud of a plant and insert it into a test tube, in a specialized growing medium. Usually growth begins and continues very rapidly, so that within three weeks we have a proliferation from two to a larger number of shoots coming from the original bud. Every three weeks, the bud continues to proliferate. As we get a larger number of shoots, we take them out, cut them apart, and put them into new growing medium. Commercially, we use jars which hold twenty of these little excised shoots or explants. As we do this, you can imagine the vast increase in the number of plants. By the end of a year, it is theoretically possible to have upward of a million plants in the laboratory by this technique.

After we have put the plants into new jars, into new medium to continue the multiplication, we put them back in the laboratory. Once we have sufficient quantities of plants, we keep some of them in the lab, the rest are removed from the jars and in a new growing medium that stimulates root production. Then these are placed back into the lab environment under special lighting and temperature conditions for a period of another ten days to three weeks, while the roots form. In some cases, it's really not necessary to put them into the lab, but we can take them directly to the greenhouse for rooting.

As soon as they are rooted, we put them into specialized trays with sterilized soil and then place them in a high humidity environment, in covered tents, within the greenhouse. The temperature and the humidity are carefully monitored, so the plants can become gradually accustomed to the outdoor environment. We start off with the tents completely covering all the plants. Gradually, every few days, we open the sides a little more, until after two to three weeks the plants are completely uncovered and are entirely exposed to the environment within the greenhouse. From here they can be taken outside and directly planted in the field in large numbers and grown-on. (This is the method I personally prefer.) Or they can be potted up and grown-on to larger sizes inside the greenhouse, or under other protective covering.

The Delbards did a test with the variety 'Madame Delbard', which is especially suited to cut-flower production. It was planted in the ground in early July, 1979, and the plants immediately began to grow. By fall they were showing flower buds and had colour on them. They continued their tests for a number of years and discovered that this particular variety produced a larger number of flowers, over a period of a year, with tissue culture and the plants grew much better. They had more renewal from the

base. At the end of the first year, the tissue culture plants produced 10 flowers more than budded plants. At the end of the second year they produced 18 saleable flowers more per plant.

In the laboratory, with manipulation, we have been able to get these tiny, one inch plants to flower. And one of the exciting things about tissue culture techniques is that we can imagine and in the process of time, develop new methods of propagation, new methods of plant breeding and development.

There are other combinations of techniques that can be used to eventually provide new types of plants, new colours in roses, more disease resistance. It is simply a matter of having the money to proceed. We have discovered that the rosling, as Armstrong is wont to call it, gets consistently better renewal of the plant from the base. There are more basal breaks, so that the plant is constantly young in vigor and growth. Sometimes, with budded plants, we have observed, in particular cultivars, that spring growth gives big "horsey" stems, so that the flowers come on stems that are very thick, uncuttable and unattractive. With tissue culture plants, on the contrary, we tend to get uniform stems all the time, and a larger number of flowering stems.

We have to be much more careful in the selection of varieties, however. In fact, it adds a whole new criterium to the development of new roses, because not only do we have to be careful in getting beautiful new flowers, and hopefully, disease resistance and winter hardiness: now we have to pay particular attention to the roots, the root structure, the ability of the plant to root by this technique, and the ability of it not only to root and multiply in the laboratory, but to go through the process of acclimation and further growth. Every variety is different in its adaptability there. And so, we have found that not all varieties can be grown by this technique.

We are selling the plants in a small way now, test marketing and continuing our tests. Some are being sold in containers, where the plants are 8 to 10 inches tall and just beginning their first flowering. I personally prefer growing them on in the field, because this provides less risk to the consumer. Tissue culture plants that are grown-on in the field for approximately a year, look very much like two year budded plants, but the root structure is different.

Something we don't think about, is that the root structure by variety varies as much as the top varies. If you have five varieties produced from tissue culture, you are liable to get five different types of root systems. Some have carrot-type roots; some have angular, thick roots that go out at almost 90 degrees from the crown; some have root systems that are quite pliable and loose. The variation is very interesting and is a function of the variety. We have to select varieties whose roots are relatively resistant to crown gall, to nematodes, and to other soil borne pests. We have to be concerned with the winter hardiness of the root system. We have found with the varieties we have tested that, as a rule, they appear to be slightly more winter hardy than budded plants. In some cases, they are significantly more winter hardy. We have planted some in Idaho and in one of the larger

parks in Chicago. We will see how they will do over the next couple of years. But, the ones that were planted in Idaho have been there for two winters and a remarkable thing has happened: as the plants went through the winter, they did not defoliate. And, for some reason, the snow that accumulated around all other plants, did not really accumulate around these tissue-culture plants. They remained sort of a little island in the snow. We don't know if they are generating their own heat. We don't know exactly why, but they kept their leaves on. They did not allow themselves to become covered with snow and they broke dormancy and bloomed faster than the budded plants in the same location. There seems to be considerable promise for people in colder climates, because of tissue-culture plants; selected by variety, however.

QUESTIONS & ANSWERS

Q. Have you increased the petalage any by that method?

A. No. We have seen virtually no change at all in the flower structure.

Q. What luck did you have with 'Touch of Venus'?

A. We are not able to grow that variety very well as a budded plant. We have found that it is a variety that is not very adaptable to tissue culture, because the plant still tends to be a weak grower. The flowers are beautiful but the plant just won't co-operate.

Q. In some of the work done at the University of Minnesota with tissue culture plants other than roses, they've found that the plant habit is more compact than growing the plants from cuttings. Have you noticed this?

A. Plants do seem to be bushier. They ultimately grow to the same height as budded plants, but because they don't get the big "horsey" stems and continue to break from the base, they look much fuller. We've seen tissue culture plants with as many as 15 basal breaks.

Q. Did you observe any genetic changes in the material you micropropagated?

A. We were quite worried about this at first and we have been very careful to limit the multiplication phase in our greenhouse, and have observed, to this date, virtually no variation in the plant or flowering characteristics of the varieties. I personally was hoping for variation, because I would like to see new types and sports coming out of it. But we would have to change our approach in order to see more of that.

Q. How are you testing the status of virus-free micropropagated plants, of which you are excising buds. In carnations for instance, if the size of the explant is larger than 0.3 mm, all the viruses are transmitted to the newly propagated plants. What is the situation in roses?

A. It is very similar, except that we start with plants that we have indexed through the University of California. Through the indexing system there, we feel confident that they are free of known malicious viruses.

Q. How will the cost of these plants compare?

A. The cost will probably remain about the same as for budded plants, at this point in time. Tissue culture technique is still very expensive. We hope in time to refine the technique so that the cost can go down.



CANADIAN WHITE STAR HT
(Mander - Canada - 1980)

Best White in the Show and winner of the W.S. KEENAN BOWL
International Rose Show 1985, Toronto

- Q. What success have you had with the various types of root systems? Which is most successful in repotting or replanting in the field?
- A. When we plant them, the root systems are so small that it is insignificant. When we dig them and send them to the customer, the root system shape doesn't seem to make that much difference. As far as you're concerned, you put it in the ground. For us, it is a little bit tricky to handle some of them. The ones that grow horizontally are very difficult for us to handle in shipping. The fibrous ones are beautiful, because you can easily get them into packages, without damaging or losing any of the roots.
- Q. When you go from a sterile position to a non-sterile position in the field or greenhouse, do you have much dieback?
- A. That depends on the variety and several other factors. In some cases yes, there is a lot of dieback, and in some cases, no. We are trying very hard to increase the livability of the plants during this acclimation period. And we are getting much better results.
- Q. You have been comparing tissue culture plants with budded plants. Have you compared an own-root tissue culture plant with an own-root cutting plant of the same variety?
- A. No, not yet. I don't know why. We have grown two varieties over the years by cuttings and I have observed one thing that is of interest and is applicable here: when we grow them by cuttings, they tend to root all along the stem. If we take an eight or nine inch stem and plant it half way into the ground, we have roots coming from ground level, from the base, and from all in between. We also have shoots that come from high on the cutting, from low on the cutting, and from underground. The plant we dig up looks terrible. With the tissue culture plant, the roots and the shoots all come from the same growing point. There is a very real crown. The roots all emanate and grow down from the crown, and the new shoots all emanate and grow up from the crown. It's a very lovely looking plant.
- Q. Will Armstrong continue to sell budded plants as well as micropropagated ones?
- A. Yes, because not all varieties can be grown by tissue culture.
- Q. Is there any more disease resistance with these plants?
- A. To date we haven't discovered any.
- Q. You top budded plants. Do you have to top these?
- A. Yes, but the topping is different. Even at home, you just use a lawn mower over them because they renew from the base.
- Q. We can't import plants into New Zealand, that have been grown in the ground. Would you export these still in the flask?
- A. No. Getting them out of the flask and into a soil medium is still so risky and tricky that it would be unfair to the customer.
- Q. What happened to the foliage that stayed on all winter?
- A. Once new foliage came on, the old foliage fell off.

- Q. Can you elaborate a little more on the habit as these plants age?
- A. The plants tend to grow fairly rapidly. The ultimate height is the same as with budded plants, but the plants tend to be much bushier. I have seen budded and tissue culture plants of the same variety grown side by side for comparison. After five years the budded plants get knobby, there are relatively few bottom breaks and the new growth comes from higher up on the plant. With tissue culture plants, the new growth still came from the base and they still looked young and vital instead of old, knobby and woody. I still have some reservations, because we have to be very careful by variety with tissue culture, but I think there is promise in the technique and it can eventually give us a much better product for home gardens.

NATURAL VITAMIN C IN POLISH ROSE FRUITS

Jadwiga Grabczewska - Poland

Rose fruits (hips or heps) are the richest and cheapest source of vitamin C in the world. The quantity of vitamin C in rose hips is expressed by the ratio of milligrams (mg) of ascorbic acid in 100 grams of flesh (mg%).

Rosa beggeriana from Central Asia is very difficult to obtain, but it has 5020 mg%. However, it is not very vigorous or winter hardy, and the hips are few and small. Among rose species growing wild in Poland, *R. canina* contains 470 mg% and *R. rugosa* 818 mg%.

In order to obtain cultivars with high contents of vitamin C, Jan Milewski has been selecting and hybridizing species and varieties for fifty years. He has obtained eight cultivars, the most outstanding of which are described below.

Crossing (*R. rugosa* x *R. beggeriana*) x *R. rugosa* he obtained 'Konstancin', which has 2918 mg% vitamin C, 3.5 times more than *R. rugosa* in its natural state. It can be budded on *R. canina inermis* understock or can more easily be reproduced from root suckers. As a result of sixteen years of selection of *R. canina*, Jan Milewski named 'Jubileuszowa' in 1974, which has 1700 mg% of vitamin C, almost four times more than *R. canina*. It can be propagated by seed. In the same year, through hybridization of *R. rugosa* x *R. damascena*, he obtained 'Wspomnienie Wiesława Milewskiego', named after the son who was killed during World War II. This rose is quite unique, as it has twenty-three petals and is almost full, but still produces hips. They have the shape, weight, and content of vitamin C similar to *R. rugosa*. The hips and petals can be used in food industry for aromatic compounds. Since it has three times as many petals as *R. rugosa*, and has inherited the strong fragrance of *R. damascena*, it is also used for the production of rose oil. It flowers from May through September, so it has a great advantage over roses from the Bulgarian (Kazanlik) and French (Grasse) rose basins, which flower only once for a short period. In addition to these technical qualities, this cultivar has great decorative value, having beautiful shape, rich foliage,

double flowers and big red hips. It can be increased by suckers and by budding on *R. canina inermis*.

All these roses can be planted in parks, gardens, and individual lots. They constitute fine decoration as well as yielding precious vitamin C for home use, with the following recipe from J. Milewski:

Put one kilogram of rose hips into an enamel pot with 1.5 litres of boiling water and cook on low heat for 45 minutes. Strain and pour into warm jars and seal. Use for soups, compotes, jellies, cocktails, etc. It is not sweet and does not have a beautiful colour, being greenish-red but it contains a considerable quantity of vitamin C. With a small addition of sugar, it is the best soft drink for children.

We can also vitaminize compotes made with apples and pears, which have no vitamin C, by adding a few rose hips. The taste and colour will be better as well. The amount of vitamin C added depends on the variety of hips used. It is also possible to make rose jam by mixing 35% red rose petals with 65% sugar and adding lemon, raspberries or other acidic components at the end to maintain the red colour. Confitures of rose hips are also delicious and of great decorative value. One must only remember that cooking rose hips at high temperatures does not destroy the vitamin C. It is only decomposed by air and during alcoholic fermentation. Thus, wine made of roses is not recommended as a source of vitamin C.

BLOOMING CLASSES IN ROSES

Stefan Wagner - Rumania

Abstract

From 1981 to 1984, the Research Station for Pomology in Cluj, Rumania observed the starting moment of blooming of 176 rose varieties of floribundas and hybrid teas. By also analyzing the sums of global positive temperatures (SGT) computed from the 1st of January each year, we concluded that a particular variety begins blooming only after having accumulated a certain amount of global temperature (SGT), regardless of the calendar date. With this as a basis, we suggest grouping varieties into five classes of blooming: early (up to 900-910 degrees SGT), semi-early (910-1000 degrees SGT), mid (1000- 1100 degrees SGT), semi-late (1100-1200 degrees SGT), and late (over 1200 degrees SGT).

The report also provides numerous examples of placing well-known varieties into different blooming classes. This will help to place future varieties into the right classes. The author also proposes that nursery catalogues give the blooming class of varieties for the public's benefit.

Introduction

The start of bloom is extremely important, both from a landscaping point of view for bedding roses and from an economical point of view for cut flowers. Knowing for sure when blooming will start would allow parks

and home gardeners to select varieties for a well distributed blooming period.

In spite of its importance, the start of bloom has been scarcely studied. References to some climbing and shrub rose varieties are to be found in reports by Kordes (1953) and to some 150 varieties by Haenchen (1980). However, there seems to be no report which classifies varieties according to the time of the first wave of bloom. This report is an attempt to implement such a classification.

1. Material and Method

One hundred and seventy-six varieties (55 floribundas, including polyantha hybrids and miniatures, and 121 hybrid teas) were observed from 1981 to 1984. Start of bloom was taken as the moment when 10% of the flower buds began to open.

Due to the fact that the start of bloom is influenced by temperature, the SGT was computed for each year by adding the positive daily mean temperatures, beginning January 1 each year. The experimental conditions are listed in Table 1.

2. Climatic Conditions

The climate of Cluj is continental, with rather unstable winters and roses sometimes suffer from frost, if unprotected. Usually every five years, we will get temperatures of -20 to 25°C at ground level. Of the four years studied, 1981 was normal, 1982 and 1984 had long and cold winters, and 1983 had a mild and warm winter. These resulted in corresponding differences in the start of bloom each year.

Table 1 - Climatic, soil and experimental conditions.

ITEMS	VALUES
— Annual mean temperature:	8.6°C
— Lowest temperature in the air:	-24.0°C (Jan. 11, 1982)
— Lowest temperature at ground level:	-26.5°C (Jan. 11, 1981)
— Sunshine hours between Jan. 1 and June 30 (1981-1984):	939 h., (1982) 746 h., (1984)
— Type of soil:	degraded chernozem
— Exposure of site:	leveled, no shading of roses
— Elevation:	360 m
— Understock:	<i>Rosa canina</i>
— Age of plants:	5-8 years
— Number of plants under observation:	10-20 / variety
— Pruning of the bushes:	moderate

3.1 Annual Calendar and Thermic Limits of Bloom Start

During the four years, bloom began on various calendar dates, depending on the weather in late winter and early spring. In 1983, after a mild winter and a warm spring, bloom began May 21-23. In 1981, after a normal winter and spring, bloom began by the end of May. In 1982 and 1984, after a long winter and cold spring, bloom began at the beginning of June (see Table 2). Each year, the hybrid tea varieties began blooming two days after the floribundas. In so far as the length of the phenophase is concerned, it differed from year to year, i.e. 17-27 days in both classes of varieties.

The SGT each year are almost equal both in the first and the last varieties (Table 2). Thus, although the difference in blooming of the hybrid teas in 1983 and 1984 was eleven days, the SGT difference was only 65 degrees (957-982), which corresponds to about three or four days. The same holds true for the other cases. Therefore, we reached the conclusion that the SGT may be used as a criterion for grouping varieties into blooming classes because a variety starts blooming only after having accumulated a certain positive SGT.

We did not find any correlation between the sunshine duration and the start of bloom. Thus, in 1982, although sunshine totalled 939 hours, blooming started late, while in 1983, blooming started eight to ten days earlier, even though total sunshine had accumulated only to 818 hours.

3.2. Classification of Roses into Blooming Classes

Table 3 shows the mean data on the varieties studied. The varieties with the earliest bloom needed only 900-910 degrees of SGT. Every five days, the SGT is increased by about 100 degrees SGT, which allows us to set up five blooming classes as follows:

- Early bloom with 900-910 degrees SGT
- Semi-early bloom with 910-1000 degrees SGT
- Mid bloom with 1000-1100 degrees SGT
- Semi-late bloom with 1100-1200 degrees SGT
- Late bloom with over 1200 degrees SGT

The interval of five days between blooming classes represents a daily mean temperature of about 20°C, typical of the first two weeks of June in Cluj.

The value of this classification is proved by the following fact: it is known that the varieties 'Chicago Peace' and 'Kronenbourg' are colour mutants of 'Peace'. All three varieties start blooming on the same day, after accumulating 1110-1112 degrees SGT.

In so far as the varieties under study are concerned, the bulk of the floribundas (43%) are in the semi-early class, whereas the hybrid teas dominate the mid class (43%) and the semi-late class (29%). There were few true earlies or true lates.

Table 2 - Calendarial and thermic limits of bloom start in roses

Class	Year	Date of bloom start ¹⁾		S G T for the:		Length of bloom start
		1st variety	Last variety	1st variety	Last variety	
Floribunda	1981	May 28	June 14	847	1188	18
	1982	June 1	June 23	820	1207	23
	1983	May 21	June 6	914	1213	17
	1984	June 1	June 27	854	1275	27
Hybrid Tea	1981	May 30	June 15	877	1204	17
	1982	June 3	June 24	861	1228	22
	1983	May 23	June 8	957	1241	17
	1984	June 3	June 28	892	1292	26

1) LSD 5% for years (calculated for 1 Floribunda varieties) = 1.7 days or 32° GT.

Table 3. Mean data on the beginning of blooming in roses (1981-1984)

Mean of days from Jan. 1	Mean calen-darial date	Floribunda		Hybrid Tea		Class of blooming
		No. of var.	SGT limits degrees	No. of var.	SGT limits degrees	
149	May 29	2	871-875	-	-	Early
150	May 30	1	988	-	-	
151	May 31	4	911-913	2	907-911	
152	June 1	4	928-936	3	922-936	Semi-early
153	June 2	6	944-955	8	944-955	
154	June 3	6	957-969	4	957-972	
155	June 4	7	974-992	7	976-992	
156	June 5	1	994	6	994-1011	
157	June 6	4	1015-1026	8	1012-1021	Mid
158	June 7	7	1029-1041	8	1027-1039	
159	June 8	1	1048	15	1042-1061	
160	June 9	1	1063	12	1063-1079	
161	June 10	4	1080-1086	9	1080-1094	
162	June 11	1	1112	10	1095-1113	Semi late
163	June 12	-	-	7	1114-1131	
164	June 13	2	1139-1141	13	1133-1149	
165	June 14	2	1159-1162	1	1152	
166	June 15	1	1172	4	1167-1186	
167	June 16	-	-	-	-	Late
168	June 17	1	1211	2	1207-1212	
169	June 18	-	-	1	1227	
170	June 19	-	-	1	1237	
Total	x	55	x	121	x	x

Because most nurseries and breeders don't classify their varieties according to this method, Table 4 gives numerous examples. Any other variety can then be correctly placed in a blooming class, once it is known with which of the listed roses it blooms. For example, all hybrid teas that bloom before 'Western Sun' can be considered early, all varieties blooming with and between 'Western Sun' and 'Virgo' are semi-early, etc. The same pattern holds for the floribundas. Owing to the genetic control of the temperature requirements of the varieties, they would always bloom in the same sequence.

Table 4. Grouping of varieties into blooming classes according to SGT accumulated (means for 1981-1984).

Class of blooming	Global thermic limits (oC)	MAIN VARIETIES x)	
		Floribunda	Hybrid Tea
Early	up to 900-910	Para-Ti, Coraline, Marie-Elizabeth, Zizi	Tzigane, Mme. Dieudonne
Semi-early	910-1000	<i>Olala</i> , Rumba, Paprika, Rosabunda, Allgold, Samba, Masquerade, Circus, <i>Kathe Duvigneau</i>	<i>Western Sun</i> , Ena Harkness, Sutter's Gold, Fragrant Cloud, Papa Meilland, Spek's Yellow, Mainzer Fastnacht, Bond Street, <i>Virgo</i>
Mid	1000-1100	<i>Iceberg</i> , Lavendula, Foc de tabara, Dr. Faust, Luchian, Samurai, Ole <i>Linsel Mainau</i>	<i>Message</i> , King's Ransom, Michaelle Meilland, Kordes Perfecta, Baccara, Pascali, Duke of Windsor, Landora, Mr. Lincoln, Montezuma, Simfonia, Lady X, Fred Howard, <i>Intermezzo</i>
Semi late	1100-1200	Fee, Marchenland, Embarrasement, Camelot	<i>Saint-Exupery</i> , Rose gaujard, Dame de Coeur, Peace, Chicago Peace, Kronenbourg, Eminence, Coronado, Varo Iglo, Konigin der Rosen, Caramba, Shannon, Royale Perfection, Sophia Loren, <i>Super Star</i>
Late	over 1200	Cri-cri	Liberty Bell, Cardinal, Erotica, Emeraude d'or

x) Listed according to order of blooming

ROSE NAME REGISTRATION

Vincent Gioia - USA

I would like to share with you some information about Rose Name Registration.

As you know, all the breeders and growers of the world, who bring new roses to the market, select names by which to identify new cultivars. These commercial names are frequently selected as nice-sounding names that will sell the rose. As a result, the rose name for a particular cultivar will vary from market to market. If you set out to buy a particular rose, you would like to be sure that the rose you get is the rose you want. It is therefore, important to have some system of recording and identifying rose names.

Some years ago, the International Society for Horticultural Science designated the American Rose Society as the International Registrar of rose names. This means that anyone who wants to have a rose name recorded and registered is encouraged to submit an application to the registrar of A.R.S., or one of the other offices established in other countries, to receive these applications (e.g. R.N.A.S. in England). The designated offices will assemble the data and send it on to A.R.S., who has the responsibility to receive those applications and record the information. Even more important, under the present set-up, they have to examine the name for acceptability for registration, in accordance with rules of nomenclature, which the international body established when they asked the A.R.S. to be the registrar.

In recent times, the rose industry has adopted a new practice concerning rose naming. That is the application of a "varietal generic denomination" referred to as "code names". The code name is this artificial, coined word seen in catalogues e.g. "Savwick", which is the name that industry adopts as the generic name of that variety. They do this in order to acquire protection for the new variety. The rose industry is attempting to protect the new varieties through a "breeders' rights" format that includes registering the code name as a trade mark. The use of a discrete code name allows for the re-use of commercial names, if the breeder chooses and permits the use of different names for the commercialization of the rose.

If the variety becomes extinct, then the code name disappears with it. It is like an identification number for each variety of rose. So that if we have in a centralized place a listing of all these code names or identification numbers, and we also know what the commercial name attached to each variety is, then we can publish this information and you can look in the reference book and determine that 'Bergund', for example, is code name 'Corfu'. With this information available, it allows us to know what a given rose cultivar is called in different market areas.

The following is the proposal we will be making to the International Society in August, 1985, in Holland. This revised system was discussed at the Registration Committee of W.F.R.S. and the committee approved the proposal, so we are able to present the proposal to the Symposium as

approved by W.F.R.S. This adds a little more importance to it, as opposed to an individual proposal of one society. We are going to recommend the use of code names for describing roses and will allow their registration in that form providing:

1. That a code name will never again be used on another cultivar, which is the practice today.
2. That the application for registration provides sufficient horticultural information to enable A.R.S. to describe the rose in print.
3. That this information will be updated by other rose names for the cultivar, as they are used. This will allow the records to be current at all times.

Code names will be accepted for registration without examination, provided they meet the above conditions and they are not offensive. Obviously if they re-use a name we will draw it to their attention. It is to their benefit not to re-use code names, since they acknowledge the need to have a single code name.

Presently not everyone uses code names. Breeders can apply for registration of a rose name by a commercial name. When this occurs, we will accept that commercial name for registration, but we will have to determine that the name has not been used on another rose, and we will, for our purposes, consider that commercial name to be the same as the code name, which means they cannot re-use it.

The proposal may cause problems with identification of roses in rose shows. The A.R.S. will still require use of commercial names, where applicable, to identify roses. We will, however, continue to be the registrar for rose names and will put out publications to this new system.

On an international basis, we want to have a uniform system which is simple to administer, will enable us to obtain the kind of information we think is important to make available to the rose buying public, and I think this system will do that. We also propose to continue and expand the use of designated national offices to receive applications, review for completeness and forward to A.R.S. for recording. We will still try to encourage people not to re-use commercial names, but all we can do is recommend it and hope they abide by it.

In summary, the intention of the new system will be to simplify rose name registration and to encourage more co-operation of the industry with us. If for example, we have to turn down the registration of some commercial name, because we are applying the rules, they get quite upset and we do not want this. We also want to provide the information, which we can assemble and publish, to all rose-growers and interested people.

THE CLEARING HOUSE

Compiled and edited jointly by:

MRS. AUDREY BRISBANE
1287 Wesmar Drive
Ottawa, Ontario
K1H 7S9

MRS. RACHEL FLOOD
R.R. #3, 155 Edgehill Rd.
Kitchener, Ontario
N2G 3W6

For the 1985 Clearing House, 570 reports were received from 10 contributors - a disappointing decrease from last year - 179 fewer reports and 6 fewer contributors. Of the 30 contributors, 13 were from Ontario, 3 from Manitoba, 3 from Saskatchewan, 2 from British Columbia, 2 from Quebec, 1 from Alberta, and 6 from the United States. We hope we will receive reports from Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland next year. We would like to solicit the assistance of regional directors to persuade CRS members in their areas to contribute to the Clearing House - no contribution is too small.

We would like to take this opportunity to thank all of our contributors, most sincerely, for their excellent work. The reports are clear and factual, and the personal comments are always interesting and of great value to the readers. Keep up the good work!

We hope everything comes up roses for you this summer.

LIST OF CONTRIBUTORS

1. Archibald, Mr. Wm. A., 349 Bliss Cres., Prince Albert, Sask. S6V 2M1
2. Baillie, Mrs. Mary, 89 Burnhamthorpe Rd., Islington, Ont. M9A 1H3
3. Beattie, Mrs. C.W., 283 Churchill Dr., Winnipeg, Man. R3L 1V7
4. Biddulph, Mrs. H., Box 22, Group 377, R.R. 3, Winnipeg, Man. R3C 2E7
5. Blyth, Mr. G., 219 Dick Street, Waterloo, Ont. N2L 1N3
6. Cadsby, Judge Milton A., 28 Hilltop Rd., Toronto, Ont. M6C 3C9
7. Caldwell, Mrs. Edna, R.R. #1, Shanty Bay, Ont. LOL 2LO
8. Cochran, Mrs. Elaine, 2131 31st Ave., San Francisco, CA, 94116, U.S.A.
9. Decker, Mr. Chuck, 2805 Breezewood Dr., Anchorage, Alaska, 99603, U.S.A.
10. Freeman, Mrs. E., 15 Chiltern Hill Rd., Toronto, Ont. M6C 3S4
11. Ghio, Mr. J.H., Bay View Gardens, 1201 Bay Street, Santa Cruz, CA, 95060, U.S.A.
12. Grant, Mr. E.N., 1257 West 49th Ave., Vancouver, B.C. V6M 2P9
13. Hillier, Mr. E., R.R. #5, Orangeville, Ont. L9W 2Z2
14. Humenick, Mrs. Muriel E., El Dorado, 6641 Crystal Blvd., Diamond Springs, CA, 95619, U.S.A.
15. Johnson, Mr. R.F., 218 Brookhaven Ave., Dorval, Que. H9S 2N4
16. Kirkland, M.D., 20 Highland Ave., Fort Erie, Ont. L2A 2X5
17. Kopecky, Mr. R.J., 11557 Prairie View Drive, Omaha, Neb. 96144, U.S.A.
18. Leskiw, Mrs. Anne, 919 Montague St., Regina, Sask. S4T 3H4
19. Magee, Mr. G.H., 1121 Homedale Blvd., Windsor, Ont. N8S 2T6
20. McCann, Mrs. Wm., 1 Queen St. N., Thorold, Ont. L2V 2P7
21. McKenzie, Mr. John, 27 Bonny Lynn Court, Scarborough, Ont. M1K 3A5
22. McMahon, Mr. Wm. E., 237 College Hts., P.O. Box U, Bowling Green, KY, 42101, U.S.A.
23. Ouellette, Mrs. Eileen, 19 Bras d'Or, Pointe Claire, Que. H9R 1W5
24. Patterson, Mr. George, 4494 Cottonwood Dr., Burlington, Ont. L7L 1R9
25. Pattinson, Mr. Richard, 31 Cameron Drive, Ancaster, Ont. L9G 2L4
26. Persad, Mrs. J., 20 Royal Cresc., Winnipeg, Man.
27. Porter, Mr. Brian J., 7119 Steer Ave., Regina, Sask. S4X 2W2
28. Roberts, Mrs. M., 1461 Perth Ave., London, Ont. N5V 2M4
29. Shewchuk, Mr. G.W., 10231 Fulton Rd., Edmonton, Alta. T6A 3T5
30. Yeomans, Mr. C.D., 6276 Dunbar St., Vancouver, B.C. V6N 1X4

The following abbreviations apply throughout:

Plant - pl., year - yr., height in feet - ', height in inches - ", Hybrid Tea - H.T., Grandiflora - Gr., Floribunda - Fl., Large Flowered Climber - LCI, Shrub - S., Miniature - Min.

HYBRID TEAS

AALSMEER GOLD, H.T. (Kordes '78). Deep yellow (dy), 34 petals. E. Cochran (2 pls. 5 yrs. 3½-4', Cal.): Medium size exhibition bloom, high centers, quilled petals, chrome yellow tinged orange-red, non fading, very good substance. Blooms borne in large clusters like a floribunda - if basal canes are pinched when 12" high, they form two stems with smaller clusters which can be disbudded and shown. Bushy spreading grower, semi-glossy foliage, disease resistant.

ALABAMA, H.T. (Weeks '76). No reports.

ALLSPICE, H.T. (Armstrong '77). No reports.

ALMONDEEN, H.T. (Christensen '82) (Angel Face x First Prize). Creamy coral pink, 35-45 petals. E. Cochran (2 pls. 2 yrs. 5½, Cal.): Urn shaped buds open slowly with spiral centers, exhibition forms, heavy substance, lovely color. In large sprays of 6-8 blooms, good for garden color, floriferous. Pinching basal canes at 12" high develops better exhibition stems and blooms. Upright branching form, dark green leathery foliage, no disease. J. Ghio (1 pl. 1 yr. 3', Cal.): Smallish flattish bloom, O.K. substance, average repeat. Classed as a russet, it is really a short of dirty mauve. Short growth habit, smallish foliage, mildews.

ALPHA, H.T. (Paolino '75) ((Show Girl x Baccara) x Romantica) x (Romantica x Super Star)). Vermilion (o-r), 20 petals. J. Ghio (1 pl. 4 yrs. 4', Cal.): Small bloom, high center, heavy substance but few petals. Great color, repeats fast, many buds per stem. Tall growth habit, bronzy foliage, few diseases.

ALPINE SUNSET, H.T. (Cant '74). No reports. (Last year for reporting this rose).

AMBASSADOR, H.T. (Meilland '79) (Unnamed seedling x Whisky Mac). Copper apricot blend (o-r), 30-35 petals. M. Cadsby (1 pl. 2 yrs. 4', Ont.): Good form and substance but not enough petals for exhibition - a fine garden rose. Straight upright growth habit, no disease. Lost 1 of 2 last winter. R.J. Kopecky (2 pls. 4 yrs. 4-5', Neb.): Exhibition bloom, lovely coloring, good substance. Upright tall grower, no disease noted. Hardiness is excellent - survived last winter without any cover; had to cut back severely but back to usual form by end of summer. E. Ouellette (1 pl. 3 yrs. 4½', Que.): Lovely large fragrant blooms, exhibition form, very thick substance, holds its beautiful colour, long lasting as cut flower. Rather sparse bloomer compared to amount of growth - towers over other bushes by fall, needs more basal breaks. Upright growth habit, no disease.

AMERICAN PRIDE, H.T. (Warriner '74). Crimson (dr), 32 petals. B. Biddulph (1 pl. 2 yrs. 3', Man.): Large 5" bloom, good high center, excel-

lent substance, gorgeous deep red color but edges burn in sun - oh for a dark red which doesn't burn in the sun. Exhibition if cut early, slight fragrance. Upright growth habit, medium green leathery foliage turns gorgeous red in fall, no disease, good for hardiness. (Last year for reporting this rose).

ANASTASIA, H.T. (Nikolai P. Greff '80). White (w), 30-35 petals. E. Cochran (2 pls. 5 yrs. 6-10', Cal.): Large high centered perfect exhibition bloom, good substance in warm weather, requires little disbudding, opens slowly, very floriferous. One of the best exhibition roses around. Vigorous upright growth habit, large semi-glossy foliage, quite disease resistant.

ANNELIESE ROTTENBERGER, H.T. (Tantau '82). Golden yellow. G. Blyth (2 pls. 2 yrs. 3', Ont.): Deep golden yellow bloom does not fade, pointed center, good substance, slow repeater. One of the best yellow roses I have grown but like all yellow roses it drops petals too fast. Average growth habit, glossy dark green foliage, no disease, wintered well.

ANGEL DELIGHT, H.T. (Fryers '76) (Sport of Femina). Peach shaded salmon/butter yellow base (ab), 36 petals. E. Cochran (2 pls. 5 yrs. 4½-5', Cal.): Beautiful high-centered exhibition bloom, very good substance, borne in clusters of 3-4, must disbud early to exhibit. Very floriferous, lightly fragrant. Upright branching growth habit, dark glossy foliage, no disease.

ANGELIQUE, H.T. (Kordes '79) (World's Fair x Pinocchio). Vermilion/orange (o-r), 34 petals. E. Cochran (2 pls. 2 yrs. 4', Cal.): Small tightly formed blooms with flattish tops, many confused centers but a few good ones, good substance, long stems, but many better ones in this color class - will remove. Upright grower, dark green foliage, healthy, no disease problems. J. Ghio (1 pl. 3 yrs. 3-4', Cal.): Mid-size bloom, ruffled petals but not many petals or blooms, Flat form, good substance. Tall grower, sparse foliage, few diseases.

ARKANSAS, H.T. (Weeks '80). No reports.

ASTRAL, H.T. (Bees '76) (Super Star x Pink Favourite). Deep rose pink, 24 petals. E. Hillier (2 pls. 1 yr. 3-4', Ont.): Good form, fair substance but opens very fast. Color is outstanding, some fragrance, produces very well - competes with other roses in the garden. Very good growth habit, dark foliage, no disease, good for hardiness.

ATHENE, H.T. (Kordes '82). No reports.

AUSTRAGOLD (KINGFU), H.T. (McGredy '80). Yellow/gold/pink blend. E. Ouellette (1 pl. 3 yrs. 2½', Que.): Medium size bloom, high centered but a few confused centres this year, average substance, often misshapened. A mediocre rose and blooms are scarce. Upright grower, dark green foliage, hardy.

AZURE SEA, H.T. (Christensen '83) ((Angel Face x First Prize) x Lady X). Mauve (m). J. Ghio (1 pl. 1 yr. 3', Cal.): High centered form, O.K. substance, large petals, slow repeat. Can have nice flowers but mildews badly. Medium grower, light green foliage.

BASILDON BOND, H.T. (Harkness '80). Yellow/red veined, fades to apricot, 50 petals. J. Persad (1 pl. 2 yrs. 2', Man.): Double exhibition bloom, holds well, ovoid buds, tends to have short stems and clusters like a floribunda. Lovely color and very fragrant - one of my favourites. Upright grower, medium green foliage, some blackspot and chlorosis this year. Hardy.

BELLEVUE (JARLENA), H.T. (Poulsen '76) ((Super Star x Piccadilly) x Fru Jarl). Dark yellow and apricot/edged red (pb), 23 petals. J. Ghio (1 pl. 4 yrs. 4', Cal.): Average size, nice cupped form, good substance, great color, long stems, good lasting quality, lots of bloom. Tall growth habit, bronzy foliage, few diseases. C.D. Yeomans (1 pl. 2 yrs. 4', B.C.): Formless bloom, average repeat, very healthy attractive foliage but the bloom is shapeless - discarding.

BENSON & HEDGES GOLD, H.T. (McGredy '79) (Yellow Pages x (Arthur Bell x Cynthia Brooke)). Gold/scarlet edges (yb), 30-35 petals. J. Ghio (1 pl. 4 yrs. 2-3', Cal.): Small bloom, poor form - often confused, O.K. substance, good color, short stems, repeats well. Short grower, light green foliage, some disease. E. Ouellette (1 pl. 3 yrs. 2', Que.): Dubious form with confused centers, uneven petals, often opening lopsided and dwarfed - didn't replace it yet need another yellow to replace it. One of those "over-rated" roses we pay a lot of money for and then baby it along. Bushy grower, light green foliage, no disease, hardiness average.

BIG CHIEF, H.T. (Dickson '75) (Ernest H. Morse x Red Planet). Deep crimson (dr), 28 petals. B. Biddulph (1 pl. 3 yrs. 36", Man.): Very full high centered bloom, 5½", holds extremely well but edges burn and blacken so not exhibition - disappointing. Good substance, might be exhibition if cut early. Some fragrance. Upright grower, dark, matt brittle foliage, no disease, good for hardiness.

BILL TEMPLE, H.T. (Harkness '75). No reports.

BIMBORO, H.T. (Kordes '78) (Unnamed seedling x Kardinal). Dark velvety red (dr). M.A. Cadsby (1 pl. 2 yrs. Ont.): Small bloom, hardly any of them, good form and substance. Didn't pay the rent - wouldn't miss it. J. Ghio (1 pl. 4 yrs. 3', Cal.): Flattish bloom, heavy substance but mostly quartered centres. Great color, long lasting. Short grower, red-green foliage, mildews.

BING CROSBY, H.T. (Weeks '80). Vivid orange (o-r), M.D. Kirkland (1 pl. 3 yrs. 5', Ont.): Medium large bloom, good substance. Improved this year - it will retain its position in rose bed. Vigorous growth habit, O.K. foliage, no disease, good for hardiness.

BLUE NILE, H.T. (Delbard '77). Lavender (m), 35 petals. M. Baillie (1 pl. 2 yrs. 24", Ont.): Double, scented bloom, exhibition form, good substance. Very good rose last year but didn't like weather this year - poor form. Tall grower, disease-free. E. Ouellette (2 pls. 1 yr. 2-¾', Que.): High centered reddish buds open to flattish form, good substance, large petals, holds many days with slight fading. Good repeat bloom - expect more bloom in 2nd year. Prefer bloom shape and colour of Lady X. Disbud early for exhibition. Upright grower with strong canes, dark leathery foliage, little blackspot,

not too much winter kill. G.J. Patterson (1 pl. 3 yrs. 3', Ont.): Fairly good form, good substance, not abundant bloomer, disappointed in colour - fades, wishy-washy. There are better lavenders, e.g. Heirloom & Paradise. Medium growth habit. No disease. O.K. for hardiness.

BLUE PARFUM, H.T. (Tantau '78). Mauve-blush (m). J. Ghio (1 pl. 3 yrs. 3', Cal.): Cupped form, weak substance, many petals, abundant bloomer, mostly in clusters. Nice color but burns at edges. Short growth habit, light green foliage, mildews.

BOBBY CHARLTON, H.T. (Fryer '74) (Royal Highness x Prima Ballerina). Deep pink/silver reverse (pb). 35-40 petals. J. Ghio (1 pl. 5 yrs. 4', Cal.): Beautiful form with pointed petals, long stems - glorious bloom but weak substance and not many of them. Erect growth habit, large foliage, mildews. (Last year for reporting this rose).

BONNIE SCOTLAND, H.T. (Anderson '76). No reports.

BRANDY, H.T. (Swim '82) (First Prize x Golden Wave). AARS 82. Golden apricot (ab), 25-30 petals. Mrs. C.W. Beattie (1 pl. 1 yr. 4', Man.): Beautiful bloom, good form, very good substance but blows quickly and not enough blooms. Still a splendid rose - expecting a great deal from it. Quite fragrant. Spreading growth habit, no disease. M.A. Cadsby (1 pl., Ont.): High centered exhibition bloom, beautiful color but not quite enough petals. Poor growth habit. E. Cochran (3 pls. 5 yrs. 5½', Cal.): Large petalled exhibition blooms with heavy substance, borne mostly one to a stem, petals drop cleanly, very floriferous, strong spicy fragrance. Tall branching growth habit, produces many basal canes, large healthy foliage. M.D. Kirkland (2 pls. 2 yrs. 3', Ont.): Very pretty 3½" blooms of good form and excellent substance, unusual color - I love it. Took 1st prize at show table. Strong grower, no disease. J. McKenzie (4 pls. 2 yrs. 3.5', Ont.): Loose form with very large broad petals, very good substance, single blooms on strong stems, slight pleasing fragrance. Everyone stops to admire it (myself included) - I rate this rose 8.6. Upright strong grower, dark green abundant foliage, good disease-resistance with spray winter protection required.

BURGUND, H.T. (Kordes '77) (Henkell Royal x seedling). Maroon (dr), 33 petals. (According to MR Hybridizer list 1983, marketed under Loving Memory - Kordes '83). M. Baillie (1 pl. 3 yrs. 30", Ont.): Medium size double bloom with high centre and good substance - good garden rose. Fragrant. Hasn't improved this year. Medium growth habit, disease-free, hardiness is good. Mrs. C.W. Beattie (3 pls. 2 yrs. 3-4½', Man.): Good exhibition form, excellent substance, holds a long time but not as floriferous as I would wish. Good performer for me - planted another one this spring. Good upright growth habit, medium glossy green foliage, no disease. Two bushes survived winter in excellent shape. G. Blyth (2 pls. 1 yr. 3', Ont.): High centered exhibition bloom, good substance, bloom lasts well. Promising plant - want to watch this one next year. Good growth habit, silvery green foliage, no disease. M.A. Cadsby (1 pl. 2 yrs. 3½', Ont.): Exhibition form, good substance, definite exhibition prospect - big red - the biggest of them all. Tall grower, no disease, hardiness is good. J. Ghio (1 pl. 3 yrs. 4', Cal.): High centered bloom, great substance, many petals, long stems, repeats well - super rose with excellent all-round qualities. Some disease. R.J.

Kopecky (2 pls. 4-6 yrs. 4', Neb.): Sometimes exhibition form, very good substance. Upright tall growth habit, no disease, hardiness is excellent - survived a very harsh winter and did well this year. G.J. Patterson (1 pl. 4 yrs. 3½', Ont.): Good form and substance, fair amount of bloom and I like the color. Strong vigorous tall grower, O.K. for disease and hardiness. G.W. Shewchuk (1 pl. 2 yrs. 3', Alta.): Large 4" bloom, long pointed bud, high centered form, good substance, always in bloom - one of my best roses. Vigorous grower, dark green semi-glossy foliage, no disease problems, hardy with my method of planting and winter protection.

CAMERA, H.T. (Delbard '81 - not registered under this name). Orange/mulberry (o-r). M.A. Cadsby (1 pl. 2 yrs. 2', Ont.): Decorative form, good substance, spectacular color makes bloom stand out from others in garden - a great favourite but would like more bloom. Low grower, dark green foliage, no disease, good for hardiness.

CAMPBILL GLORY, H.T. (Harkness '81) (Elizabeth Harkness x Perfecta). Creamy-pink, 40-45 petals. E. Cochran (2 pls. 3 yrs. 4½-5', Cal.): Large bloom, high centered exhibition form, good substance, long buds unfold to a real beauty. Borne mostly 1 to a stem, fragrant. Upright branching growth habit, large leathery dark green foliage, disease-resistant.

CANDLELIGHT, H.T. (Christensen & Swim '82) (Shirley Laugham x Seedling) x (Bewitched x King's Ransom). Rich yellow/pink edge in spring, 28-33 petals. E. Cochran (2 pls. 2 yrs. Cal.): Large buds open to mostly decorative notched bloom with stiff wide petals, very good substance, great in hot weather but too few petals for good exhibition variety. Upright branching growth habit, dark leathery foliage, mildews in foggy weather.

CAPTAIN HARRY STEBBINGS, H.T. (Stebbing '80). Deep pink (dp), 45-50 petals. E. Cochran (2 pls. 3 yrs. 5½', Cal.): Large buds open to 5½" exhibition bloom, excellent substance, repeats throughout the season - always beautiful form - best dp H.T. exhibition rose in my garden. Upright spreading growth habit, large dark leathery foliage, disease resistant so far, becoming huskier each year with many thick basal canes.

CARAMEL CREAM, H.T. (Weeks '81). No reports.

CHAMPION, H.T. (Fryers '76) (Grandpa Dickson x Whisky Mac). Cream and gold flushed pink and crimson, 50-55 petals. Mr. A. Cadsby (2 pls. 2 yrs. 2½', Ont.): Could be good exhibition rose if you could get it open - I never did. Good substance. Upright grower, no disease, hardiness is good. R.J. Kopecky (3 pls. 2-4 yrs. 2½', Neb.): Lovely until ¾ open then usually shows split center, very good substance, floriferous and repeats well. Sprawling grower, no disease noted, survived an exceptionally hard winter without any cover.

CHANTILLY LACE, H.T. (Paul de Vor '78) (Blue Moon x Angel Face). Deep lilac/magenta edging (m), 30-35 petals. E. Cochran (2 pls. 3-4 yrs. 3½-4', Cal.): Urn shaped buds, exhibition form bloom, repeats well - wins many blue ribbons. Upright grower, medium green matt foliage, some mildew. W. McMahon (1 pl. 3 yrs. 4½', Ky.): Classic form, good substance, splendid rose - better form than Paradise, bloom smallish like Pascali but

always perfect. Holds well. Neat upright growth habit, good foliage. Get one if you get a chance.

CHARLES DE GAULLE, H.T. (Meiland '74) ((Sissi x Prelude) x (Kordes' Sondermeldung x Caprice)). B. Biddulph (1 pl. 2 yrs. 24-30", Man.): Large 3-4" blooms, full, good substance, good garden rose. Multiple blooms on stem, rather like a grandiflora - seems to be the nature of the beast. Fragrance is glorious. Vigorous grower, some very tall second growth in mid-summer, no disease, good for hardiness. J. Persad (1 pl. 3 yrs. 4-5', Man.): Ovoid bud opens to double very fragrant bloom. Repeats well - a nice mauve, one of my favourites. Holds color well. Tends to cluster like a floribunda occasionally. Irregular growth habit, occasional blackspot, hardiness is good. (Last year for reporting this rose).

CHIVALRY, H.T. (McGredy '77). No reports.

CLIVIA, H.T. (Kordes '79). Vermilion (o-r), 60 petals. M. Baillie (1 pl. 2 yrs. 20", Ont.): Fair form, good substance, good color but small bloom and sparse bloomer - good decorative rose when it's out. Will wait another year. Low grower, dark foliage, disease-resistant. B. Biddulph (1 pl. 2 yrs. 20", Man.): Exhibition form, excellent substance, goegeois colour, full double bloom, holds well, doesn't fade - what a joy - a prize winner. Upright growth habit, light green foliage, small amount of blackspot in fall, good for hardiness. E. Cochran (2 pls. 3 yrs. 4', Cal.): Lovely urn shaped exhibition bloom, one to a stem and opens slowly to perfect form, long stems, light fragrant. Tends to be an intermittent bloomer. Upright grower, medium green matt foliage, disease-resistant.

COALITE FLAME, H.T. (Dickson '74) (Fragrant Cloud x Red Planet). Deep vermilion (mr), 60 petals, M. Baillie (1 pl. 1 yr., Ont.): Will give this another year - has not been good this year. Two feet tall, light green foliage, no disease, good for hardiness. (Last year for reporting this rose).

COLOR MAGIC, H.T. (Warriner '78) (Unnamed cultivar x Spellbinder). Creamy pink and ivory shading to deep rose (pb), 25-30 petals. B. Biddulph (1 pl. 2 yrs. 24", Man.): Flat form, poor substance, sparse bloomer, fades, doesn't repeat well. Color is a washed out pink blend. A disappointment - will give it another year in its new place. Upright grower, dark shiny foliage, no disease, good for hardiness. B.F. Johnson (1 pl. 2 yrs. 48", Que.): Large loose petalled bloom, very colourful and plentiful, can be exhibition, fair substance. Upright growth habit, bright mid-green glossy foliage, no disease, hardy with protection. An earwig and a small green worm beetle came out of the bloom I picked to complete this report - a bad year for insects on the Lakeshore. G.J. Patterson (1 pl. 2 yrs. 3', Ont.): Beautiful form, large bloom, excellent colour, not too abundant but very attractive - a show winner. Good substance. Fair growth habit, medium green foliage, no disease, O.K. for hardiness. J. Persad (1 pl. 2 yrs. 2½', Man.): Double, large, very fragrant blooms on long stems, holds well but wish it had more blooms - repeats slowly. Upright growth habit, occasional blackspot, winters well.

CORSO, H.T. (Cocker '76) (Anne Cocker x Dr. A.J. Verhage). Coppery orange (ob), 35 petals. J. Ghio (1 pl. 4 yrs. 4', Cal.): Flattish form, good

substance, unusual color but it fades. Long stems, adequate bloom. Tall grower, adequate foliage, mildews. G.W. Shewchuk (2 pls. 6 yrs. 2½', Alta.): Large 4½" bloom, exhibition form, good substance, slightly fragrant, bloom long lasting on bush or as cut flower. Neat clean bush, no disease, hardy with my method of planting winter protection. C.D. Yeomans (1 pl. 1 yr. 4', B.C.): Wish I had grown this years ago - beautiful rose, good form, good grower.

CURTAIN CALL, H.T. (Weeks '77). No reports.

CYNTHIA (CYBELLE in Europe), H.T. (Warriner '75). No reports.

DEEP SECRET (MILDRED SCHEEL), H.T. (Tantau '77). Deep crimson (dr), 40 petals. G.W. Shewchuk (1 pl. 2 yrs. 2½', Alta.): Large double 4" blooms, good exhibition form, good substance, very fragrant. Upright neat bush, glossy dark green foliage, no disease problems, hardy with my method of planting and winter protection.

DEREK NIMMO, H.T. (McGredy '81). Salmon (pb). G. Blyth (2 pls. 1 yr. 3', Ont.): High centered bloom of good form and substance, lasts well. I like this rose - will order more - may be a prize winner. Vigorous growth habit, dark green foliage, no disease. M.A. Cadsby (1 pl. 2 yrs. 3', Ont.): H.T. form but difficult to open because of great number of petals. Similar in color to Las Vegas but not as vivid. Upright growth habit, no disease, good for hardiness.

DISCO, H.T. (Weeks '80). Cerise red/lighter reverse (rb). Wm. A. Archibald (1 pl. 1 yr. 30", Sask.): Medium large double bloom, high centered form, excellent substance, very beautiful color combination, somewhat sparse bloomer. I like this rose very much - hope it overwinters. Compact grower in Saskatchewan, nice textured foliage, disease resistant.

DOLLY PARTON, H.T. (Winchell '83). Orange red (o-r). William McMahon (3 pls. 1 yr. 4', Ky.): Exhibition form, superior substance, holds well in hot weather and will give good stems - has Queen power and big enough for English Box class. Bushy grower, dark foliage.

DORIS TYSTERMAN, H.T. (Wisbech Plant Co. '75) (Peer Gynt x unnamed seedling). Tangerine orange/darker at edge (ob), 28 petals. B. Biddulph (1 pl. 1 yr. 18-20", Man.): Striking tangerine-orange color, exhibition form, good substance, repeats well with 15 blooms at once, slight fragrance. My second bush and, although slow starting, it is a superior bush now. Spreading but compact growth habit, attractive shiny dark green foliage in contrast to striking color of bloom, no disease.

DOUBLE DELIGHT, H.T. (Swim & Ellis '77) (Granada x Garden Party). Creamy white/strawberry red edges (rb), 35-45 petals. M. Baillie (1 pl. 3 yrs., Ont.): High centered urn shaped bloom, good substance, fragrant. Not a favourite of mine but it produced some excellent exhibition roses - will likely be around a while. Medium growth, no disease, hardiness is good. Mrs. C.W. Beattie (3 pls. 1-2 yrs. 3½-4', Man.): Medium size bloom, usually exhibition form but some split centres, excellent form. A "work horse" in my garden - very reliable and repeats quickly. Vigorous grower, medium green good foliage, no disease, hardy so far. B. Biddulph (1 pl.

3 yrs. 24", Man.): Lovely urn shaped bud, exhibition quality plus, excellent substance, repeats slowly but produces many blooms both times. Very appealing rose both in garden and for showing - a real "delight" to have. Spicy fragrance. Upright grower, no disease, good for hardiness. Strong robust stems on second growth. G. Blyth (4 pls. 5 yrs. 3½', Ont.): Good form but some double centers, good substance. I like this one - a very attractive garden rose and an attention getter, some blooms are exhibition quality. Excellent growth habit, no disease, good for hardiness. E.N. Grant (1 pl. 3 yrs. 4', B.C.): Lots of substance but every bloom had a bad center and not enough of them, however, fragrance makes up for all its faults. Lost to last year's severe winter - may not replace. Upright grower, sparse foliage, some mildew. R.F. Johnson (1 pl. 4 yrs. 45", Que.): Double, fully petalled, large bloom, exhibition form, good substance, most blooms late in season. Mature blooms showing red coloring across face of blooms look like large two-toned carnations - a unique rose, more than a novelty. Bushy grower, plentiful foliage, no disease, hardy with protection. E. Ouellette (1 pl. 3 yrs. 2', Que.): Big showy double bloom, changes colour as it matures, always keeps "crisp" shape. Urn shaped form, good substance, plenty of blooms with perfect form in this its 3rd year: best show early in July. Excellent in arrangements as focal point. Bushy grower, no disease, hardiness is good - good amount of green wood. G.J. Patterson (1 pl. 2 yrs. 30", Ont.): Fair form, rather flat bloom with rather shaggy confused centre, small when not disbudded, fairly numerous. Hope it improves with age - some flowers are very attractive, many have admired its fragrance. No disease, O.K. for hardiness. J. Persad (1 pl. 4 yrs. 3', Man.): Double exhibition bloom, cupped form, urn shaped bud, lots of blooms, colour doesn't fade. Did much better this year. Upright grower, long stems, dark green foliage, disease free, hardy with protection.

DR. DARLEY, H.T. (Harkness '81). Fuchsia pink, 30 petals. E. Cochran (1 pl. 2 yrs. 3½' Cal.): Very stable color - shocking pink with lighter reverse. Long buds open to semi-exhibition form bloom, nice fragrance, blooms borne 1 to a stem and each one is 4½" wide. Had some nice blooms - hope it improves next year. Upright grower, medium green matt foliage, disease-resistant so far.

DUFTSTAR, H.T. (Kordes '74) (Seedling x Papa Meilland). Dark red (dr), 24 petals, G.J. Patterson (1 pl. 3 yrs. 4½', Ont.): A good rose - excellent form, good substance, vivid striking colour, fair number of blooms, people like its fragrance. Tall grower this year, dark green foliage, no disease, O.K. for hardiness. (Last year for reporting this rose).

DUTCH GOLD, H.T. (Wisbech Plant Co. '78) (Peer Gynt x Whisky Mac). Deep golden yellow (my), 32-34 petals. J. Ghio (1 pl. 5 yrs. 5', Cal.): Large bloom, flattish form, O.K. substance, long stems, excellent color, abundant bloomer. Tall grower, light green foliage, some disease. C.D. Yeomans (1 pl. 2 yrs. 7', B.C.): Beautiful colour but a poor repeater. Vigorous healthy plant.

ESMERALDA, H.T. (Kordes '80) (Seedling x Red Planet). Cerise red/lighter reverse (mp), 32 petals. E. Cochran (3 pls. 3 yrs. 4½', Cal.): For me the color is a beautiful pink blend, silver-pink bud with watermelon pink edges, blooms carmine with light pink edges. Large exhibition bloom,

opens slowly and lasts for days - best rose I have imported from Kordes. Excellent substance - a perfect rose. Upright spreading growth habit, large leathery glossy foliage, disease-resistant. G. Magee (1 pl. 1 yr. 36", Ont.): Long H.T. bud, good form but not exhibition to date, good substance, promising. Very thorny stems. Upright grower, no disease. Wm. McMahon (4 pls. 1 yr. 5', Ky.): Good form and substance but some snubbing and fading in mid-summer heat. Long stems, often radiant color and lovely leaves make it a prize winner. Holds well. Vigorous grower.

EVA GABOR (SENTIMENTAL), H.T. (P & M Olson '83) (Unnamed seedling & unnamed seedling). Dark pink (dp). R.F. Johnson (1 pl. 1 yr. 58", Que.): Large 5" bloom with large petals, some exhibition blooms, fairly good substance, color not clear - some orange tone, fragrant. Tall upright grower, dark green foliage, slight gloss, no disease.

FASCINATION, H.T. (Warriner '80). No reports.

FEMME, H.T. (Delbard '82). No reports.

FIRE MAGIC (FEUERZAUBER), H.T. (Kordes '74). Bright orange red (o-r). J. Ghio (1 pl. 4 yrs. 4', Cal.): High centered bloom, O.K. substance, abundant bloomer, average repeat, not too many petals, but it can be the most magnificent bloom imaginable. Moderate grower, large foliage, mildews. J. Persad (1 pl. 2 yrs. 3', Man.): Double bloom, exhibition form, very showy, holds well, fragrant, repeats well and lovely color doesn't fade - one of my favourites. Upright grower, disease-free, dark green shiny foliage, good for hardiness. (Last year for reporting this rose).

FLAMING BEAUTY, H.T. (Winchell '78). No reports.

FLAMINGO, H.T. (Kordes '78). Shell pink (1p), 28 petals. E. Cochran (2 pls. 3 yrs. 5½', Cal.): Exhibition form with high spiral centers, good substance, wish it were larger but great for arrangements. Borne several and one to a stem, long husky stems support blooms well. Tall branching growth habit, dark semi-glossy foliage, mildews in wet weather - can be controlled with Bayleton. J. Ghio (1 pl. 3 yrs. 4', Cal.): Small bloom with few petals, exhibition form, fine substance, absolutely lovely color, repeats instantly. Moderate grower, small light green foliage, mildews easily. R.F. Johnson (1 pl. 2 yrs. 36", Que.): Just lovely - excellent form, very good substance, small bloom but still a favorite. At maturity shows darker pink spots. Bushy grower, no disease, hardy with protection.

FOLKLORE, H.T. (Kordess '77) (Duftwolke x seedling). Coral orange/gold reverse (ob), 70 petals. M. Baillie (2 pls. 3 yrs. 5-6', Ont.): Classic bud, exhibition type bloom with good form and substance, lovely color for decorative work - one of the best roses in the garden this year. Branching tall plant, good foliage, disease resistant, good for hardiness. Mrs. C.W. Beattie (1 pl. 1 yr. 4½-5', Man.): Long pointed bud, high centered exhibition form, good substance, Upright growth habit, good foliage, no disease. E. Caldwell (1 pl. 3 yrs. 3', Ont.): Very full bloom, pointed center and recurring petals, excellent substance, opens slowly, very long lasting. Orange-ice colour softer than some other orange roses. Very upright plant, deep green foliage, no disease. Grown in coldest windiest spot of rose bed - came through winter very well. J. Ghio (1 pl. 6 yrs. 5', Cal.): Small bloom,

exhibition form, O.K. substance, lovely yummy color but few blooms and only average repeat. Tall spreading growth habit - almost a climber - abundant foliage, mildews. E.N. Grant (1 pl. 1 yr. 6', B.C.): Excellent form, good substance, color holds well, bloom lasts and lasts in good compact shape. Sufficient bloom and increasing - first year after fall planting. Tall strong growth habit, very good foliage - more than happy with this rose this very good sunny season. R.F. Johnson (1 pl. 3 yrs. 60", Que.): Large fully petalled double bloom, exhibition form, excellent substance, very fragrant. Acceptable number of blooms. One of the few orange roses I like. Too tall a bush, no disease, hardy with protection. R.J. Kopecky (1 pl. 4 yrs. 5-6', Neb.): High centered exhibition form, excellent substance - still one of the better exhibition blooms in my garden. Tall upright grower, no disease, survived a very bad winter, and growing to its normal height - getting better with age. M. McCann (1 pl. 4 yrs. 4-5', Ont.): High centered form, good for show and decorative designs, color lasts well, great garden appeal, lovely blooms on long stems. A joy in our garden. Tall upright "back of border" variety, vigorous grower, dark green foliage, no disease, hardy with protection. E. Ouellette (1 pl. 1 yr. 3½', Que.): Perfect H.T. form, long pointed buds and high centered blooms, very good substance, gorgeous color, soft coral orange with slight yellow reverse. Produced perfect blooms all season - a beauty in a rose bowl - unfolds slowly and lasts 8 days without losing form and color - love it. Upright grower, thick foliage, no disease, hardiness is good. J. Persad (1 pl. 3 yrs. 4-5', Man.): Long pointed buds, large double blooms of exhibition form, love the color and fragrance is lasting - one of my favourites. Long stems, repeats very well, holds well. Irregular growth habit, occasional blackspot.

FORTUNA, H.T. (Kordes '77). Coral salmon. J. Ghio (1 pl. 4 yrs. 4', Cal.): High centered spiral form, fine substance, lovely color but not much bloom, average repeat. Average grower, light green foliage, mildews.

FREUDE, H.T. (Kordes '74). No reports. (Last year for reporting this rose).

FRIENDSHIP, H.T. (Lindquist '78) (Fragrant Cloud x Miss All-American Beauty). Deep coral-pink/flushed salmon red (dp), 25-30 petals. M.A. Cadsby (1 pl. 2 yrs., Ont.): Beautiful exhibition form, good substance, dazzling color - one of the best new roses - better than Bobby Charlton. Tall grower, ample foliage, no disease, hardiness is good. R.J. Kopecky (1 pl. 3 yrs. 4', Neb.): Large bloom, can be shown but mostly for garden, very good substance, a steady performer. Upright bushy growth habit, no disease so far, proved its hardiness last winter.

FROHSINN (JOYFULNESS), H.T. (Tantau '82 - not registered). Apricot blend (ab), 25-30 petals. E. Cochran (2 pls. 3 yrs. 4½-5', Cal.): Conical buds, large high centered exhibition form bloom - a beauty. Excellent substance, opens slowly, intermittent bloomer but all quality blooms. Will increase. Upright growth habit, large dark leathery foliage, disease-resistant.

GALLIVARDA, H.T. (Kordes '77) (Konigin der Rosen x Wiener Charme). Orange and yellow (ob), 34 petals. Wm Archibald (1 pl. 2 yrs. 30", Sask.): Large double high centered exhibition bloom, excellent substance, repeat

blooming - think this is one of the most beautiful blends available. Upright growth habit, no disease, hardiness questionable here had one another year but lost it. M. Baillie (1 pl. 3 yrs. 2', Ont.): Small bloom, good bud, good form and substance, attractive but a reluctant bloomer and slow repeat - another ordinary rose. Slow grower, no disease, hardiness is good. E. Caldwell (1 pl. 1 yr. 3', Ont.): High centered form, good substance, striking color, opens well and lasts well, super for designs. Upright grower, new foliage is very shiny burgundy, no disease. J. Ghio (1 pl. 5 yrs. 5', Cal.): High centered form, good substance, abundant blooms and repeats fast. Not many petals. Super blooms in cool weather, loses lustre in warm weather. Erect grower, very light green foliage. R.F. Johnson (1 pl. 3 yrs. 5'3" and growing, Que.): Bright colors attract attention, form good in early stages, fair substance - I keep it for its bright colors and abundant bloom. Too tall a plant, no disease, hardy with protection. G. Magee (1 pl. 4 yrs. 4'2", Ont.): Long H.T. bud, fine form if they don't split, good color in garden, open bloom not too full. Good rose in its color class where most varieties open rapidly. Upright grower, disease-free, quite hardy. G.J. Patterson (1 pl. 3 yrs. 3½', Ont.): Rather loose form, only fair substance, not too many blooms - may need more sunshine. Not impressed - will replace. Tall growth habit, no disease, hardiness O.K.

GEORGIA, H.T. (Weeks '80). No reports.

GILBERT BECAUD, H.T. (Meilland '80). Copper orange, 50 petals. Wm. McMahon (1 pl. 1 yr. 4', Ky.): Small bloom, good form but poor substance. In Kentucky had lovely tints of apricot in spring but blooms turn muddy in summer heat and stay small. Arrangers like the spring bloom. J. Persad (1 pl. 2 yrs. 2', Man.): Ovoid buds, double bloom, fragrant, short stems, slow repeater, tends to blow. Good garden rose. Some blackspot and chlorosis this year, good for hardiness.

GITTE, H.T. (Kordes '78) ((Fragrant Cloud x Peer Gynt) x (Dr. A.J. Merhage x Colour Wonder) x Zorina). Apricot yellow (ab), 33 petals. E. Cochran (2 pls. 2 yrs. 3½-4', Cal.): Pointed buds, H.T. form blooms with notched wide petals, good substance - some problems in foggy weather. Love the color, intermittent bloomer. Upright branching growth habit, large medium green foliage, no disease. Will try another season. J. Persad (1 pl. 2 yrs. 2', Man.): Small double bloom, fragrant, short stems, tends to grow like a floribunda, not enough petals, blows too soon and fades fast. A disappointment. Upright growth habit, occasional blackspot, hardy.

GOLD 'N HONEY, H.T. (Leon '76). No reports.

GOLDSMITH (HELMUT SCHMIDT), H.T. (Kordes '80). Medium yellow (my). 35 petals. E. Cochran (3 pls. 4 yrs. 4½', Cal.): Long buds, large bloom, exhibition form, strong stems, floriferous - one of the best yellow exhibition roses. Borne in clusters - must be pinched to correct this and have perfect blooms. Excellent substance, repeats well. Upright branching growth habit, large dark leathery foliage, no disease. J. Ghio (1 pl. 4 yrs. 3', Cal.): Usually exhibition, sometimes "bull-nosed", not many petals, heavy substance - still a lovely yellow. Short stems, average growth habit, large foliage, mildews. R.F. Johnson (1 pl. 2 yrs. 48", Que.): 5" bloom, some exhibition but sometimes bull-nosed, somewhat loose at maturity, fair to good sub-

stance, many blooms. American Rose (Apr. '83) lists three names - those above and Simba. Upright grower, plentiful foliage, no disease, hardy with protection. R.J. Kopecky (3 pls. 1 yr. 3', Neb.): High centered exhibition bloom, very good substance, long lasting, clear clean color, borne one to a stem - one of the better new yellows - will be a consistent winner. Upright grower, no disease first year. J. Persad (1 pl. 2 yrs. 2½', Man.): Ovid bud, exhibition form bloom, tends to cluster like a floribunda but some long stems and large blooms - a nice yellow. Very fragrant, blooms hold well. Irregular growth habit, dark green foliage, blackspots, hardy.

GRAND MASTERPIECE, H.T. (Jackson & Perkins '81) - not registered yet). Medium red, 38-45 petals. E. Cochran (2 pls. 3 yrs. 4½-5', Cal.): Pointed buds with quality exhibition blooms, borne one and several to a stem, good substance, repeats well, lightly fragrant. Some lovely show blooms in hot weather but color dulls in foggy weather. Tall upright grower, dark leathery foliage, no disease.

GREAT CENTURY, H.T. (Delbard '80). White/rose. M. Baillie (1 pl. 2 yrs. 3', Ont.): Delicate pinky white color, classic exhibition form, great substance, double bloom, fragrant - an excellent rose, one of the best new ones in my garden. Upright grower. E. Caldwell (1 pl. 1 yr. 2', Ont.): Large double bloom, high centered, fairly good substance - beautiful - great for design work. Opens well and long lasting. Upright growth habit, large mid green foliage, resistant to blackspot.

HALLELUJAH, H.T. (Delbard '80 - not registered under this name). Red/silver bicolor (rb). M. Baillie (1 pl. 2 yrs. 3', Ont.): Classic exhibition form, good substance, opens very slowly - a lovely rose but 3 beautiful blooms in two years is not good enough - will wait and see. Upright grower, good foliage, disease free. M.A. Cadsby (1 pl. 2 yrs. 2', Ont.): Very large, deeply colored exhibition bloom, good substance - a real exhibition rose - could be queen of any show. Dark green foliage, no disease, good for hardiness. G.J. Patterson (1 pl. 2 yrs. 4', Ont.): Striking blooms, heavy flower, a large red - I like this because of form, color and size but not enough of them. Very good substance. Quite vigorous grower, dark green foliage, no disease, quite hardy.

HARMONIE, H.T. (Kordes '81) (Fragrant Cloud x Uwe Seeler). Salmon-pink (pb). 20 petals. M. Baillie (1 pl. 1 yr. 3', Ont.): Nicely form urn-shaped bloom, fragrant, not prolific, good substance. Best in fall - perhaps will improve next year. Good disease-free foliage. G. Blyth (3 pls. 2 yrs. 4½', Ont.): Excellent high centered form, long stemmed blooms, excellent substance, fragrant. Very vigorous grower, dark green foliage, no disease, good for hardiness. E. Cochran (2 pls. 2 yrs. 4', Cal.): Large decorative bloom, great form at ¼ open then becomes too loose. Great rose for garden color - floriferous, non-fading color. Upright grower, large leathery foliage, disease-resistant. C.A. Decker (1 pl. 1 yr. 3½', Alaska): High centered bloom opens cupped form, good substance, borne mostly single blooms but lots of them although slow to repeat, fragrant. Will re-evaluate next year as plant was slow to start. Bushy upright growth habit, dull foliage, slight mildew. J. Ghio (1 pl. 3 yrs. 4', Cal.): High centered bloom, great color, O.K. substance, large petals but few of them. Doesn't hold form well and only average repeat. Tall grower, no disease. R.J. Kopecky (2 pls. 2 yrs. 3',

Neb.): High centered exhibition form at times, good substance. Upright growth habit, no disease noted, hardiness is excellent - proved its worth last winter and made excellent growth after severe pruning in spring.

HIDALGO, H.T. (Meilland '79) ((Queen Elizabeth x Karl Herbst) x MEIFiga x Pharaoh) x MEICESar x Papa Meilland)). Currant red, 30 petals. J. Ghio (1st pl. 4 yrs. 4', Cal.): Great exhibition form, average substance, long stems, few petals. Doesn't hold form long. Tall grower, large foliage, mildews.

HONOR, H.T. (Warriner '80) (unnamed seedling x unnamed seedling). White (w), 18-25 petals. Wm Archibald (1 pl. 3 yrs. 30'', Sask.): Mid size double bloom, high centered form but loose, excellent substance - a good white for this part of the country. Upright growth habit, clean attractive foliage, some balling of blooms, has wintered well. M.A. Cadsby (3 pls. 4 yrs. 3', Ont.): Exhibition white, good substance, a bit small, probably the best white H.T. you can have in the garden. Tall grower, ample foliage, no disease, good for hardiness. E. Cochran (3 pls. 5 yrs. 6-10', Cal.): Long buds open to high centered exhibition blooms, slowly. Very floriferous, light fragrance, good substance - still one of the best exhibition white roses. Disbud early for better blooms, basal canes should be pinched to produce better stems. Borne several to a stem. Tall branching grower, no disease problems. E. N. Grant (2 pls. 1-2 yrs. 4½', B.C.): Excellent form with clean high centers, sometimes blooms are huge, plenty of substance, long lasting though a bit sparse on petallage - an A1 exhibition white. Enough bloom to warrant garden space forever. Upright grower, good leathery foliage, no disease. M.D. Kirkland (1 pl. 3 yrs. 4', Ont.): Nice large white bloom with good form and excellent substance but Pascali usually wins over it at shows. Good growth habit, very good foliage, no disease. G. Magee (1 pl. 4 yrs. 48'', Ont.): Fine bud and exhibition form large bloom - one of the best whites. My plant shows virus on some leaves. Upright growth habit, fairly hardy. J. Persad (1 pl. 1 yr. 3', Man.): Large double bloom, exhibition form, holds well, lots of bloom, repeats well, fragrant. A lovely white but few basal breaks. Upright grower, dark shiny foliage, long stems, occasional blackspot, hardy. G.W. Shewchuk (4 pls. 4 yrs. 2½'-3', Alta.): Exhibition form, good substance, would be better with a few more petals, repeats well - has done well in my garden. Neat trim bush, large dark glossy foliage, no disease, hardy with my method of planting and winter protection. C.D. Yeomans (3 pls. 3 yrs., B.C.): Is a good exhibition rose if the show is early enough. Not hardy - one dead, two badly damaged by cold wet winter.

HOT PEWTER, H.T. (Harkness '78) (Alec's Red x Red Dandy). Clear light scarlet, 35 petals. E. Cochran (3 pls. 2 yrs. 4½', Cal.): Large bloom, exhibition form, excellent substance, unusual color, borne one to a stem - not really floriferous but all blooms are quality - will keep it. Upright branching growth habit, dark leathery foliage, disease-resistant. M. McCann (1 pl. 1 yr. 2', Ont.): Exhibition form and good substance, reminds me of Lady Rose, expected color to be much hotter. Nothing outstanding about it, blooms are scarce - needs a year or two to develop. Upright bushy grower, healthy dark green foliage, no disease, hardy with protection. J. Persad (1 pl. 1 yr. 2', Man.): Double very fragrant bloom, ovoid buds, exhibition form, long stems, lovely colour, holds well. Upright growth habit, disease-free, hardy.

HOUSTON, H.T. (Weeks '81). No reports.

INNOXA FEMILLE, H.T. (Harkness '81) (Red Planet x Eroica). Burgundy red, 45-50 petals. E. Cochran (1 pl. 2 yrs. 4½', Cal.): Stubby flattish buds, short heavy petals of excellent substance, mostly decorative - looks like an old garden rose, retains pure burgundy red color until petals drop, very, very fragrant. Didn't perform in wet foggy weather but hot weather produced beautiful blooms. Upright grower, leathery foliage, no disease.

ISABEL CHAMPION, H.T. (Delbard '78). Red. G.J. Patterson (2 pls. 2 yrs. 30", Ont.): A very lovely flower, vivid and glowing, usually good form and substance, occasionally hangs head but can be a winner. Good growth habit, medium foliage, no disease, O.K. for hardiness.

IVORY TOWER, H.T. (Kordes '77). No reports.

JADIS, H.T. (Warriner '74) (Chrysler Imperial x Virgo). Medium pink (mp), 40 petals. G. Blyth (2 pls. 3 yrs. 30", Ont.): Good form, fair substance, good color but sparse bloomer - not doing well for me - will discard. Poor growth habit, weak foliage, no disease, hardy with protection. E. Ouellette (1 pl. 2 yrs. 2¼', Que.): Great in bud form - long like Virgo parent, good show rose - stays in bud longer than normal. High centered form bloom, good substance. Not a robust rose for me but has potential - will give more room next year and extra feeding in early spring. Upright grower, light green foliage, no disease, slow to leaf out. J. Persad (Man.): Very fragrant double high centered bloom, tends to have long neck, good garden rose, holds well. Upright growth habit, medium green matt foliage, disease-free, hardy. (Last year for reporting this rose).

JENNIFER HART, H.T. (Swim & Christensen '82). No reports.

JOURNEY'S END, H.T. (Gandy '78). No reports.

JULIA'S ROSE, H.T. (Wisbech Plant Co. '76) (Blue Moon x Dr. A.J. Verhage). Copper parchment, 22 petals. E. Ouellette (1 pl. 2 yrs. 2', Que.): Pointed coppery buds open slowly, hold well in each phase, perfect H.T. form but small - will add more plants. Very good to excellent substance, unique color like silk roses, unusual for special floral work; doesn't blend well with yellow but creamy whites like Pascali and Evening Star good companions - one of my favourites. Small upright bush, dark green foliage, no disease in 2 years, hardiness is good. R. Pattinson (1 pl. 2 yrs. 24", Ont.): Double 3" bloom, long and pointed - interesting rose for arrangements, very attractive when almost fully opened. Good substance, slightly fragrant, good repeat bloom. Reddish green foliage, no blackspot or mildew, hardiness no problem.

KARMA, H.T. (McGredy '78) (John Waterer x Kalahari). Medium red, 30 petals. J. Ghio (1 pl. 5 yrs. 3', Cal.): Quite good high centered form, O.K. substance, few petals, short stems but nice blooms. Shorter grower, bronzy foliage, some disease.

KATHLEEN O'ROURKE, H.T. (Dickson '76) (Fragrant Cloud x Red Planet). Orange red (o-r). 38 petals. E. Cochran (2 pls. 5 yrs. 4', Cal.): Exhibition form with high centers and good substance, excellent repeat blooms, borne several to a stem, nice cut bloom, nice fragrance. Can produce some

beauties in the o-r class - different luster type sheen. Semi-spreading grower, medium green foliage, disease-resistant. J. Ghio (1 pl. 5 yrs. 3', Cal.): Erratic bloom habit - some blooms are lovely, others are not, few petals, OK substance. Spreading growth habit, large foliage, some disease.

KILWORTH GOLD, H.T. (Gandy '77). No reports.

KONIGIN BEATRIX, H.T. (Kordes '83) (Seedling x Patricia). Pure apricot orange (ob). E. Cochran (2 pls. 1 yr. 4', Cal.): Medium size bloom, spiral form with good centers, borne several and one to a stem, heavy substance. Performed well but wish it were larger - needs another year for better evaluation. Upright grower, dark green leathery foliage, no disease so far.

KONRAD HENKEL, H.T. (Kordes '84) (Seedling x Red Planet). Medium red, 35 petals. E. Cochran (2 pls. 1 yr. 4½', Cal.): Large exhibition bloom, fully exhibition form, high centers that quill into star form - excellent. Heavy outstanding substance, performed well for first year - will increase. Upright grower, large dark leathery foliage, disease resistant.

LADY ILLIFE, H.T. (Gandy '76). No reports.

LADY ROSE, H.T. (Kordes '79). Deep vermilion (o-r), 42 petals. E. Cochran (2 pls. 5 yrs. 4½-5', Cal.): High centered exhibition form, such outstanding heavy substance that fog doesn't harm it, borne singly or several to a spray, stiff stems, very floriferous. Beautiful show blooms and a real show-off in the garden - eye catching vermilion color, no fading. Upright branching growth habit, dark bronzy to dark olive foliage, disease resistant. J. Ghio (1 pl. 5 yrs, 4', Cal.): Very double bloom, great form and color, plenty of bloom and repeats fast - an excellent rose, good substance. Medium grower, bronzy foliage, few diseases. M. McCann (1 pl. 1 yr. 2', Ont.): Exhibition form, good substance, like Tropicana but a deeper hue and deeper at edge of petals - good for identification. Did well for first year plant, hope for larger blooms next year. Bushy grower, dark green healthy foliage, no disease, hardy with protection but our winter was not kind to winter-weary roses. C.D. Yeomans (1 pl. 2 yrs. 4', B.C.): Smallish bloom, classical shape, beautiful flowers, excellent garden rose. Good producer. Bushy plant, dark healthy foliage.

LAKELAND, H.T. (Fryers '76) (Fragrant Cloud x Queen Elizabeth). Soft shell pink (1p), 36 petals. G.W. Shewchuk (1 pl. 2 yrs. 2', Alta.): 5" bloom, good exhibition form, good substance, sweet fragrance, repeats well. Bush not vigorous, very few basal breaks. Shiny medium green foliage, mildews easily, hardy with my method of planting and winter protection.

LAS VEGAS, H.T. (Kordes '81). Orange red/chrome yellow reverse (ob), 25-30 petals. M.A. Cadsby (1 pl. 2 yrs. 4', Ont.): H.T. form with high centers, good substance, lovely deep color - a standout in the garden - colorful and glamorous. Tall grower, ample foliage, no disease, good for hardiness. E. Cochran (2 pls. 2 yrs. 4½', Cal.): Large loose blooms, great when ¼ open, when ½ open they lose form, weak necks - must be staked until ready for show. Plants are very healthy with beautiful foliage - a real shame to have this bad fault. No disease. J. Ghio (1 pl. 3 yrs. 4', Cal.): Large bloom, super high centered form but doesn't hold it long, OK substance, extraordinary coloring. Tall grower, bronzy foliage, some disease.

L'OREAL TROPHY, H.T. (Harkness '81). Orange salmon. E. Cochran (2 pls. 3 yrs. 4½', Cal.): Lovely long buds, decorative bloom with deeply notched petals, arranger's dream. Very attractive color - a real show-off in this class, sweet spicy fragrance. Excellent garden rose, repeats well. Tall branching growth habit, large dark matt green foliage, disease-resistant, long thorny stems.

LOVERS MEETING, H.T. (Gancy '80) (Seedling x Egyptian Treasure). Orange vermilion (o-r), 35 petals, E. Cochran (2 pls. 2 yrs. 3½-4', Cal.): Medium size bloom, too small for exhibition, good substance, borne 1-3 to a stem. Really a different color - a must for arrangers, retains brilliant color until last petal drops. Long stems, floriferous. Upright grower, dark matt green foliage, no disease so far.

MADRAS, H.T. (Warriner '80). No reports.

MAESTRO, H.T. (McGredy '81) ((Marlena x Evelyn Fison x Orange Sweet-heart x Fruhlingsmorgen) x (Little Darling x Goldilocks x Hamburger Phoenix x Danse du Feu x John Church x Elizabeth of Glamis)). Red blend, 28 petals. E. Cochran (2 pls. 4 yrs. 5½', Cal.): 4½" decorative bloom, super substance, borne 5 to a cluster, disbudding will produce larger blooms. Light dusty pink, Tuscan-red border, speckled - a most unusual hand painted variety - real people stopper. Upright branching growth habit, many new basal canes every year, vigorous husky plant, leathery glossy foliage, disease-resistant.

MANOU MEILLAND, H.T. (Meilland '79) ((MEIgriso x Baronne Edmond de Rothschild) x (Ma Fille x Long Song)). Mauve pink (m), 50 petals. J. Ghio (1 pl. 3 yrs. 3', Cal.): Small bloom, exhibition form, heavy substance, many petals, in many clusters, nice color. Short grower, very shiny foliage, no disease. J. Persad (1 pl. 2 yrs. 2½-3', Man.): Double bloom, exhibition form that holds well, tends to have short stems in a cluster like a floribunda but color is gorgeous and it doesn't fade - one of my favourites. Lots of bloom, fragrant. Irregular growth habit, medium dark green foliage, disease-free, hardy.

MARION HARKNESS, H.T. (Jarkness '79) ((Manx Queen x Prima Bal-lerina) x (Chanelle x Piccadilly) x Piccadilly). Canary yellow/orange red edge (my), 24 petals. R.F. Johnson (1 pl. 2 yrs. 36'', Que.): Decorative form, fair substance, very bright color attracts attention. Bushy growth habit, plentiful mid green foliage, no disease, hardy with protection.

MARMALADE, H.T. (Swim & Ellis '77). No reports.

MARYKE KOOPMAN, H.T. (Fryers '78). Satin pink. Wm. McMahon (2 pls. 1 yr. 4', Ky.): Slender classic form, good substance, few petals but has won Queens. Lovely for arrangers, generous bloomer on straight stems. Maybe it will get larger when well grown. C.D. Yeomans (1 pl. 3 yrs. 7', B.C.): Has developed into good garden rose, can be used for exhibition if cut early. Excellent repeat bloom. Big spreading plant, perhaps over-vigorous.

MASCOTTE, H.T. (Paolino '77). Yellow with red edges. J. Persad (1 pl. 2 yrs. 2½', Man.): Fragrant double bloom, exhibition form, holds well,

nice color - yellow with red lips that pale as bloom opens - a nice rose. Long stems, repeats well. Upright grower, medium dark green foliage, occasional blackspot, hardy.

MILESTONE H.T. (Warriner '85) (Sunfire x Spellbinder). Orange-pink/flushed red. E. Cochran (2 pls. 1 yr. 4½', Cal.): Huge buds with fluted edges, blooms open more decorative than exhibition, good substance, fall season produced some high centered large blooms. Long stems, soft fragrance. Another year will show form better. Upright branching growth habit, large semi-glossy green foliage, disease-resistant.

MISSISSIPPI, H.T. (Williams '76). No reports.

MISTY, H.T. (Armstrong '76). No reports.

MITSOUKO, H.T. (Delbard '83). No reports.

MME GEORGES DELBARD, H.T. (Delbard '80). No reports.

MON CHERI, H.T. (Christensen '82). Pink/red (rb), 35 petals. Mrs. C.W. Beattie (1 pl. 1 yr. 3½-4', Man.): Gorgeous color, exhibition bloom with high centers, good substance, fragrant. Truly a beautiful specimen - hope it winters here, will grow more. Upright branching growth habit, medium green foliage, no disease. E. Cochran (2 pls. 5 yrs., Cal.): Produces exhibition and decorative blooms at different times of year and in different weathers. Most floriferous red blend I grow - will keep it for garden color and the few show blooms. Husky plants, spreading growth, beautiful foliage clear to the ground, disease resistant. G.W. Shewchuk (1 pl. 3 yrs. 1½', Alta.): Long lasting exhibition form bloom, good substance, but color and form are really its only attributes. Very stingy with bloom - may discard. Low grower, medium green glossy foliage, no disease, hardy with my method of planting and winter protection.

MONTREAL, H.T. (Gaujard '79). Medium pink. Wm. McMahon (2 pls. 1 yr. 5', Ky): Smallish bloom - may be bigger in spring. Slow to repeat - not sold on it for the corn belt. Willowy plant, stems 5 ft. long.

NATALIE, H.T. (Tantau '82). Soft pink/creamy base. E. Cochran (1 pl. 1 yr. 3½-4', Cal.): Long conical buds, rather small bloom, can be exhibition form, fair substance, good repeat bloom. Hope it will improve with another year's growth. Upright plant, leathery dark green matt foliage, no disease so far.

NEVILLE GIBSON, H.T. (Harkness '82) ((Red Planet x (Carima x Pascali))). Medium pink. E. Cochran (1 pl. 1 yr. 4½', Cal.): Very large buds, huge exhibition blooms with many 1 to a stem and 3 to a stem, great substance, non-fading color, low in quantity but high in quality. Upright spreading growth habit, large dark green matt foliage, disease resistant so far.

NIGHTTIME, H.T. (Weeks '75). No reports.

NIAGARA PRIDE, H.T. Pallek '82). Orange blend. E. Hillier (1 pl. 1 yr. 4', Ont.): Excellent show rose - good form, excellent substance, worthy of its name. Color is salmon-orange. Should have a good future and win its class. Good growth habit, no disease, hardiness is good.

NIAGARA STAR, H.T. (Davis '79). No reports.

NORTHERN GOLD, H.T. (Delbard - not registered). No reports.

OCTOBER, H.T. (Weeks '81). No reports.

OLYMPIAD, H.T. (McGredy '82) (Red Planet x Pharaoh). AARS 84. Bright red (mr). M. Baillie (1 pl. 1 yr. 2½', Ont.): Classical form, good substance, not a large bloom - a great garden rose. Bloom in single stems, continuous bloomer. Upright grower, good foliage, no disease. G. Blyth (5 pls. 1 yr. 30", Ont.): Cupped form, good substance, no black on petal edges, many blooms, repeats well but does not appear to be exhibition type - nice garden rose. Disappointing first year growth, glossy foliage, no disease. M.A. Cadsby (1 pl. 1 yr. 3', Ont.): Decorative form, good substance, sparse bloomer - strictly a garden rose the first year. Upright growth habit, ample foliage, no disease. E. Caldwell (1 pl. 1 yr. 4', Ont.): High centered form unfolds nicely, good substance, lasts well, fluorescent red is big plus. Would like more bloom - maybe next year. Very upright grower, very attractive foliage - shiny dark green edged red, occasional blackspot in October. C.A. Decker (2 pls. 1 yr. 3', Alaska): Large bright red bloom, high centered exhibition form, excellent substance, long stems, holds form for a week on plant or as cut bloom, average repeat. Upright growth habit, no disease. Plants had late start and were rather weak plants to start but McGredy roses seem to do well in Alaska - only Sundowner has failed to do well for me. E. Freeman (2 pls. 1 yr. Ont.): Medium sized bloom, lovely bud opens to loose decorative bloom, fair substance, repeats well. Planted last fall it was best looking rose in garden in April then seemed to go downhill - will wait for next year. J. Ghio (1 pl. 1 yr. 3', Cal.): Outstanding exhibition form and color, good substance, average repeat. Medium grower, some disease. R.F. Johnson (1 pl. 1 yr. 46", Que.): Bloom somewhat small but some are exhibition, good substance. First AARS red in years but I prefer Mr. Lincoln and Americana. Upright grower, glossy foliage, no disease. M.D. Kirkland (2 pls. 1 yr. 3', Ont.): Fair form, only fair substance, only medium size. Best feature is its color - very good - otherwise, have better reds. Fair growth habit, ordinary foliage, no disease, OK for hardiness. R.J. Kopecky (1 pl. 1 yr. 3½', Neb.): Cupped form, sometimes exhibition, very good substance, do not think it is a world beater - will wait to make final judgement. Planted late but caught up to established plants by fall. No disease noted. J. McKenzie (5 pls. 1 yr. 2½-3', Ont.): Medium size, semi-double bloom, cupped form then flat - some high centers. Nice growth habit with lots of basal breaks, disease-resistant - rate this rose 7.9. G.W. Shewchuk (1 pl. 1 yr. 2½', Alta.): Well formed long lasting exhibition blooms, good substance, good repeat - will increase if it continues to do well. Large semi-glossy foliage, no disease. C.D. Yeomans (2 pls. 1 yr. 5', B.C.): Acquired in spring - has grown and flowered exceptionally well. Bloom a bit flat for exhibition - looks like a good garden rose. No scent.

OLYMPIC DREAM, H.T. (Hybridizer not known). Pink blend. B. Biddulph (1 pl. 1 yr. 6", Man.): One of a package of 3 with Olympic Glory and Olympic Spirit from McConnells. Poor form and substance, didn't hold, 2 blooms for season - disappointing bush. Very slow starting, no basal breaks, no disease. The 'dream' in L.A. turned out better than this one in my garden. G. Blyth (2 pls. 1 yr. 30", Ont.): Fair form and substance, beautiful pink shade - light in center and darkens to edges. Weak plants received, growth was slow, no disease - will try one more year.

OLYMPIC GLORY, H.T. (Hybridizer not known). Medium red. B. Biddulph (1 pl. 1 yr. 15", Man.): Nice medium red, rather ordinary bud but double bloom which held fairly well. 12 blooms all told. Only garden form so far. Upright grower, no disease. G. Blyth (2 pls. 1 yr. 30", Ont.): Good bloom but not exhibition - opens too flat, fair substance. Plants received were weak - will keep one more year and discard if no improvement. No disease.

OLYMPIC SPIRIT, H.T. (Hybridizer not known). Deep yellow. B. Biddulph (1 pl. 1 yr. 19", Man.): A yellow blend for me. Strong pointed buds, garden and exhibition blooms, good substance - the best of the "Three Musketeers" - never did like buying a package deal but that was how they were marketed, also they were waxed and from local retail store - 3 strikes against them before they were planted. Holds well, repeats well. No disease. G. Blyth (2 pls. 1 yr. 30", Ont.): Good color in bud but washes out. Received small plants, poor growth - will discard if no improvement next year. Dark green foliage, no disease.

ORANGE GOLIATH, H.T. (Gandy '75). No reports.

ORANGE MAJESTY, H.T. (McConnell Canada '79). Bright orange, M.D. Kirkland (2 pls. 4 yrs. 6', Ont.): Very large exhibition rose, similar to Tropicana but larger, excellent substance, wins prizes consistently - a very good rose! Good growth habit, good medium green foliage, no disease, hardiness is good too.

OREGOLD (MISS HARP), H.T. (Tantau '75) (Piccadilly x Konigin der Rosen). Deep yellow. E.N. Grant (1 pl. 4 yrs. 2½', B.C.): Large well formed flowers, very good substance, some fragrance, modest early flush, infrequent follow-up. Feel this bush has suffered from anemia since I planted it - will give it one more year. Standard growth habit, OK foliage, no disease.

OSIRIA, H.T. (Kordes '78) (Snowfire x unnamed seedling). Red/white bicolor (rb), 50 petals, C.A. Decker (1 pl. 1 yr. 3', Alaska): Exhibition high centered form, occasional split centers, excellent substance, long lasting bloom. Seems to be a good rose, more substance than Oriana but Oriana a better all around bloom and plant. Wm. McMahon (4 pls. 3 yrs. 4', Ky.): Large bloom, a bit flat, finally getting fairly long stems in 3rd year. Big show blooms refrigerate well but some judges point it down for charcoal tints - seems silly.

OVATION, H.T. (Weeks '77). No reports.

PARADISE, H.T. (Weeks '78) (Swarthmore x unnamed variety). Silvery lavender washed pink/ruby red edges (m), 26-30 petals. G. Blyth (1 pl. 3 yrs. 4½', Ont.): Excellent stopper. Vigorous growth habit, shiny green foliage, no disease, needs extra winter protection in this area. M.A. Cadsby (3 pls. 3 yrs. 5', Ont.): Excellent form, good substance, the color intrigues me - best of this shade. A winner - I recommend it frequently as a fine rose. Upright grower, ample foliage, no disease, good for hardiness. E. Cochran (3 pls. 5 yrs. 5', Cal.): Not really mauve but a blend, most unusual color combination, exhibition form with spiral centers, good substance, sweet fragrance. Some split centers in too cool weather. Upright growth habit, disease-resistant. R.F. Johnson (1 pl. 3 yrs., Que.): Did not survive last winter after two previous winters with little snow

cover - tender. A favourite - will replace. R.J. Kopecky (5 pls. 3-4 yrs. 3½', Neb.): High centered exhibition form, excellent substance - a good one. Lost only 1 plant to a severe winter - rest performed as usual, giving a good supply of blooms all summer. Upright grower, no disease. J. McKenzie (3 pls. 3 yrs. 4', Ont.): Large double bloom, exhibition form with high centers, excellent substance, slight scent, strong straight stems. Vigorous grower, abundant foliage, no disease problems with spray program, winter protection required. I rate this rose 8.5. G.J. Patterson (1 pl. 3 yrs. 30'', Ont.): Good form in bud but opens a little flat, good substance, beautiful when at its best, smaller size in summer, delicate lavender color - I like it. Fair growth habit, no disease, OK for hardiness. R. Pattinson (1 pl. 3 yrs. 3', Ont.): 4½'' bloom, long pointed bud, very beautiful when in full bloom, repeats well - excellent substance. Really a mauve blend because of deep reddish color on petal tips. Excellent show rose. Very upright growth habit, dark glossy foliage, some blackspot, needs winter protection.

PASADENA, H.T. (Kordes '81) ((Merko x (Sweet Promise x (Maeir x Zorina)). Orange red (o-r), 40-45 petals. E. Cochran (2 pls. 2 yrs. 4', Cal.): Medium size bloom, exhibition form with spiral centers and reflexing petals, very good substance, borne several to a stem - disbudding produced some perfect show blooms. Color holds even in foggy weather, slight fragrance, great for arrangements because of lasting qualities. Upright grower, leathery foliage, disease-resistant.

PATSY CLINE, H.T. (Christensen '84) (Angel Face x Double Delight). Lavender-pink/red edges (m). E. Cochran (2 pls. 2 yrs. 3½', Cal.): Medium size bloom, beautiful exhibition form with spiral centers, good lasting quality, blooms borne mostly one to a stem, very fragrant - will increase. Upright spreading growth habit, dark green leathery foliage, no disease so far. J. Ghio (1 pl. 1 yr. 3', Cal.): Flattish form, OK substance, average repeat, nice bush - sort of a shorter version of Paradise but mildews badly. Spreading growth habit.

PEGGY NETHERTHORPE, H.T. (Delbard '74) ((Voeux de Bonheur x Chic Parisien) x (Michele Meilland x Mme. S. Perraud)). Medium pink (mp), 35 petals. B. Biddulph (1 pl. 3 yrs. 20'', Man.): Large 5'' bloom, full exhibition form, good substance, holds well on bush or as cut flower, good number of blooms and repeats well. Very popular in this region - colour is pleasing and doesn't fade readily. Spreading growth habit, disease resistant - none this year, hardy with protection. (Last year for reporting this rose).

POESIE, H.T. (Jackson & Perkins '79). Light pink (1p), 38 petals. R.F. Johnson (1 pl. 2 yrs. 46'', Que.): 5'' bloom, exhibition form at 1/3 to 1/2 open then somewhat loose, good substance, lots of blooms from spring to fall. Vigorous grower, plentiful foliage, no disease, OK for hardiness with protection.

POPE JOHN PAUL II, H.T. (Guy Brisebois & Jack McIntyre '84) (Pink Perfection x Maria Stern). Orange red, 40-42 petals. G. Blyth (1 pl. 1 yr. 4', Ont.): Large 5'' bloom, high centered form, good substance - beautiful rose, similar color to Tropicana. Received plant late, grew it in a planter on patio - excellent results. Very pleased - will order more. Repeats well. Vigorous grower, dark green foliage, no disease. G.W. Shewchuk (1 pl. 1 yr.

2', Alta.): 4-4½" bloom, good form and substance, in bloom all summer. Upright growth habit, medium green glossy foliage, no disease problems this year.

POT O'GOLD, H.T. (Dickson '79) (Eurorose x Whisky Mac). Gold, 34 petals. E. Cochran (1 pl. 1 yr. 3-4', Cal.): Medium size bloom opens flat - best when half opened, must be disbudded to exhibit, borne 35 to a cluster - more like a floribunda. Retains color well. Bushy upright grower, glossy foliage, clean 1st year. C.D. Yeomans (1 pl. 1 yr. 5', B.C.): Medium size cupped bloom, has bloomed quite well for first year. Vigorous upright growth habit.

PRECIOUS PLATINUM (RED STAR, ROYAL SHOW, OPA POETSCHKE), H.T. (Dickson '74) (Red Planet x Franklin Engelmann). Crimson (mr), 35 petals. J. Ghio (1 pl. 6 yrs. 4', Cal.): Exhibition form, OK substance, many petals, lovely color, long stems, good repeat. Tall spreading growth habit, large foliage, some mildew. R. Pattinson (1 pl. 5 yrs. 3', Ont.): Double 4" blooms, high centered exhibition form, excellent substance - a beautiful red that should be in all gardens. Doesn't bloom until July and misses the shows. Very prolific and good repeater. Upright to spreading growth habit, dark green leathery foliage, no disease, good for hardiness. J. Persad (1 pl. 2 yrs. 2', Man.): Fragrant double bloom, ovoid bud, good garden form, slow opening but blows quickly, nice red color looks lovely in the garden. Not many blooms. Upright grower, blackspot, hardy. G.W. Shewchuk (1 pl. 3 yrs. 2', Alta.): 3½" bloom, high centered form, good substance, bloom long lasting on bush and as a cut flower. Leathery dark green glossy foliage, no disease, hardy with my method of planting and winter protection. (Last year for reporting this rose).

PRESENCE, H.T. (Delbard '83). No reports.

PRESIDENT LEOPOLD SENGHOR, H.T. (Meilland '79). No reports.

PRIDE OF CANADA, H.T. (Collins '81). Deep pink (dp), 28-30 petals. G.W. Shewchuk (1 pl. 1 yr. 2½', Alta.): Large exhibition form bloom, good substance, good repeat. Shiny dark green foliage, no disease problems.

PRINCESSE DE MONACO, H.T. (Meilland '81). Deep pink. W. McMahon (2 pls. 1 yr. 4', Ky.): Pretty if you like pastel pink. Good form and substance, petals tipped cerise in cooler periods - not good in Kentucky in full sun in summer. Good stems and leaves, growth habit and foliage like Peace.

PRISTINE, H.T. (Warriner '78) (White Masterpiece x First Prize). White shaded light pink (w), 25-30 petals. E.N. Grant (1 pl. 3 yrs. 5½', B.C.): A1 form, good substance, almost ideal for the show bench - rather fleeting but gorgeous when at its best. Sparse bloom but better in 3rd season, fast repeat, no scent. A1 foliage, some mildew. R.F. Johnson (1 pl. 4 yrs. 48", Que.): High centered exhibition form, fairly good substance, can open fast, not as many blooms this year. One of my favourite photographic subjects. Very vigorous growth habit, large plentiful foliage, no disease, hardy with protection. G.J. Patterson (1 pl. 2 yrs. 30", Ont.): Long slim bud, few petals, unfurls very quickly. Slow to repeat but fair number of blooms. I am disappointed - variety has been highly praised. Mine is beside Royal Highness and not nearly so good. Small bloom somewhat like Sweet Afton. Good

grower, no disease. OK for hardiness. R. Pattinson (1 pl. 5 yrs. 3', Ont.): 5-6" bloom, double, high centered exhibition form, excellent substance. Slight pink in center of blooms - looks very elegant when fully open. Very upright grower, beautiful dark green foliage, some blackspot, needs winter protection.

PURPLE BEAUTY, H.T. (Gandy '79) (Eminence x Tyrius). Lavender (m), 30 petals. M. Baillie (Ont.): High centered form but substance is not good. Doesn't open well - a disappointment. Growth best in fall, OK foliage, no disease, hardiness is good.

QUINELLA, H.T. (Not registered). Orange blend. M.A. Cadsby (1 pl. 2 yrs. 2½', Ont.): Burnt red brick color - I don't like it. Flat cup shaped form, good substance, slow to repeat, discolors badly when bloom ages. Blackspot, hardiness is good.

RED MAJESTY, H.T. (McConnell, Canada '78). No reports.

RED MASTERPIECE, H.T. (Warriner '74) ((Siren x Chrysler Imperial) x Carrousel x Chrysler Imperial)). Deep red. G. Blyth (2 pls. 6 yrs. 4½', Ont.): High centered form, good substance, many petals but they blacken at edges. Good garden rose - blooms well, repeats well. Vigorous grower, dark green foliage, no disease, winters well. (Last year for reporting this rose).

SANDRA, H.T. (Kordes '81) (Merko x Unnamed Seedling). Light pink (2p). 30-35 petals. E. Cochran (2 pls. 2 yrs. 5½-6½', Cal.): Long buds, super exhibition form, outstanding substance, heavy textured petals that quill, borne mostly one to a stem - a real sleeper for this climate. Beautiful salmon-pink color with tinges of apricot - very stable. Upright tall grower, large dark leathery foliage, only slight mildew.

SAVANNAH, H.T. (Weeks '81). No reports.

SCHWEIZER GOLD, H.T. (Kordes '75). No reports.

SENTIMENTAL, H.T. (Poulsen '81). No reports.

SILVER JUBILEE, H.T. (Cocker '78) ((Highlight x Colour Wonder) x Parkdirektor Riggers x Piccadilly) x Mischief). Coral pink (pb), 30-35 petals. E.N. Grant (2 pls. 1 & 2 yrs. 3', B.C.): Short very thorny stems carrying consistently good blooms, singly. Lovely color and bloom form, great substance but stems too short for 'showing' except in box class - hope they will relax next year and grow more wood. Very compact grower, almost too much foliage, clean. E. Ouellette (1 pl. 1 yr. 2', Que.): High centered exhibition form, good substance, appealing color but only two blooms 1st year - sorry I missed seeing it in 2/3 open stage. Not enough basal breaks, small bush, needs good feeding to produce sturdier plant - expect better production in '85. No disease. G.W. Shewchuk (1 pl. 6 yrs. 2½', Alta.): Excellent exhibition form, excellent substance, large bloom, flower stems short, good repeat. Neat compact bush, medium green glossy foliage.

SOUTHERN BELLE, H.T. (Swim & Ellis '81) (Pink Parfait x Phoenix). Creamy white/deep pink (pb), 25-30 petals. J. Ghio (1 pl. 2 yrs. 3', Cal.): High centered form, OK substance, weak stems that don't hold up blooms

as they should. Good repeat. Spreading growth habit, light green foliage, some disease.

SPELLBINDER, H.T. (Warriner '74). No reports. (Last year for reporting this rose).

STANDOUT, H.T. (Weeks '77). No reports.

SUNBRIGHT, H.T. (Warriner '83). Sulphur yellow. J. Ghio (1 pl. 3 yrs. 3', Cal.): Small bloom, good color, exhibition form, OK substance, average petal count. Repeats well. Compact grower, dense foliage, mildews.

SWEETHEART, H.T. (Cocker '80). No reports.

SWEET SURRENDER, H.T. (Weeks '82) (Unnamed Seedling x Tiffany). Silver pink. 1983 AARS. E. Cochran (2 pls. 5 yrs. 5½', Cal.): Sometimes exhibition but mostly flat folded centers, good substance, nice color, floriferous, borne several to a stem. Will keep it for its heavenly fragrance - like no other. Upright spreading growth habit, silver-grey/green foliage, disease resistant. C.A. Decker (3 pls. 2 yrs. 3½', Alaska): Smallish bloom, cupped shape, good to poor substance, lots of bloom, heavy sweet fragrance. Weak necks hurt this rose - will not reorder. Upright grower, dull foliage, blackspot and mildew. R.J. Kopecky (1 pl. 1 yr. 3', Neb.): Form sometimes fair, sometimes very good, very good substance - jury is still out on this one. Planted late in spring but shows enough promise that I think it will be good garden rose with exhibition potential. Bushy grower, no disease. G.W. Shewchuk (1 pl. 2 yrs. 2½', Alta.): High centered buds and exhibition form bloom but balls in rainy weather. Thin petals, blooms borne on long stems, strong tea fragrance, stingy bloomer. Plants appear allergic to spray - damaged. Hardy with my method of planting and winter protection.

SYLVIA, H.T. (Kordes '78) (Carina x Seedling). Deep pink (dp), 36-42 petals. G. Magee (1 pl. 4 yrs. 48", Ont.): Urn shaped bud, always perfect form blooms on long stems, good substance, medium size - a fine flower arranger's rose. Good bloomer. Upright bushy plant, a little mildew, quite hardy.

TARANTELLA, H.T. (Kordes '80) Yellow/edges tipped red. R.J. Kopecky (2 pls. 3 yrs. 3', Neb.): Definitely not exhibition form - like old fashioned, good substance. After a miserable winter it didn't even die back - grew like a weed this summer - makes rose growing interesting. Upright grower, no disease so far, hardiness excellent. C.D. Yeomans (1 pl. 2 yrs. 6', B.C.): Very vigorous and healthy and a good producer but flowers are ugly - discarding.

TAXI, H.T. (Poulsen '78). No reports

TCHIN-TCHIN, H.T. (Paolino '78). No reports.

TRIBUTE, H.T. (Warriner '83). No reports.

TYNWALD, H.T. (Mattock '79) (Peer Gynt x Isis). Cream/yellow center (w), 60 petals. J. Ghio (1 pl. 4 yrs. 3', Cal.): Many petals, ruffled, flat but exhibition form, OK substance, nice rose that is different. Average repeat. Medium growth habit, light green foliage, no disease. M. McCann (1 pl. 4

yrs. 4-5', Ont.): Decorative form, excellent substance, in singles and clusters, blooms last well even in wet weather, many petals hold on, average size bloom. A 'back of the border' in growth, great garden rose and also useful for decorative designs. One strong cane produced clusters of yellow blooms - others were white. Tall bushy grower, no disease, excellent for hardiness when hilled up.

TYPHOO TEA, H.T. (McGredy '74). No reports. (last year for reporting this rose).

VELVET HOUR, H.T. (LeGrice '78). Dark red (dr), 44 petals. M. Baillie (1 pl. 2 yrs. 3', Ont.): Velvety double bloom, classical form, good substance, small size, very fragrant. Just another pleasant garden rose. Upright grower, good foliage, no disease, good for hardiness. E. Cochran (1 pl. 1 yr. 3½-4', Cal.): Medium size bloom, exhibition form with spiraled centers that quill, good substance. A hot weather rose - blues in fog - hope it will do well in our cooler climate next year. Spreading grower, dark reddish foliage, mildews.

VIA MALA, H.T. (Kordes '79) (Silver Star x Peer Gynt). White (w), 28-33 petals. E. Cochran (1 pl. 5-6 yrs. 8-11', Cal.): Urn shaped buds open flat but still exhibition. Outstanding substance, great fragrance. Produces better blooms on shorter stems by pinching all basals at 18" to develop two laterals. Tall plant like a climber, leathery matt green foliage, disease resistant. J. Ghio (1 pl. 6 yrs. 6', Cal.): Large double blooms, OK form, good substance but not free flowering. Much rank growth detracts. Large foliage, no disease. M. McCann (1 pl. 3 yrs. 3', Ont.): Nice size bloom but loses exhibition form after half open, won't hold in heat. Only fair substance, shy bloomer - wouldn't recommend it. Can't compare with show quality of Pascali. Average growth habit, dull green foliage, little blackspot, hardy if hilled up. E. Ouellette (1 pl. 4 yrs. 7', Que.): Small bloom, flat but compact form, good substance, petals packed tightly resembling zinnias. Very long lasting, sparse bloomer and slow to repeat. Very tall like a climber or Jack's beanstalk! Few basal breaks, and one bloom per lanky cane is almost ridiculous. No disease, excellent for hardiness.

VIENNA WOODS, (WIENERWALD), H.T. (Kordes '74) (Konigen der Rosen x seedling). Light salmon/flesh reverse (pb), 35-40 petals. J. Ghio (1 pl. 5 yrs. 4', Cal.): High centered bloom, good substance, supper color, super long stems, repeats fast - excellent rose. Spreading growth habit, large foliage, no disease. (Last year for reporting this rose).

VOL DE NUIT, H.T. (Delbard '83). No reports.

WESTERN FAIR, H.T. (Noakes '81). No reports.

WOMAN, H.T. (Delbard - not registered). No reports.

WORLD ROSE (DIE WELT), H.T. (Kordes '76) (Seedling x Peer Gynt). Yellow/orange/light red shading (ob), 25 petals. B. Biddulph (1 pl. 1 yr. 36", Man.): Large 4½" blooms, garden form, good substance, numerous blooms and repeats well, nice in garden. Slow start but second growth tall robust canes. Glossy attractive foliage, no disease. G. Blyth (4 pls. 5 yrs. 4', Ont.): Large blooms 5-6", many petals, good form, excellent substance, produces well and repeats well - good garden rose. Very vigorous and

healthy plant, winters well. E.N. Grant (1 pl. 3 yrs. 3½', B.C.): Bloom sparse but huge, an ideal short rose, spectacular color, near perfect form, good substance. Poor repeat bloom but a MUST for anyone who likes to show - best in show at Vancouver again in '84 - that's 3 years in a row here.

YORKSHIRE BANK (TRUE LOVE), H.T. (DeRuiter '79) (Pascali x Peer Gynt). White/sometimes cream center (w). C.D. Yeomans (1 pl. 3 yrs. 42", B.C.): Beautiful pearly white flowers, medium size, very long lasting when cut but not enough of them. Very healthy.

YOUNG QUINN, H.T. (McGredy '75). No reports.

GRANDIFLORAS

BLUE RIBBON, Gr. (Christensen '82) ((Blue Nile x (Ivory Tower x Angel Face)). Mauve, silvery lavender (m). E. Cochran (2 pls. 2 yrs. 4½', Cal.): Long buds, exhibition blooms with high centers, hold form well, good substance, great fragrance - needs more time for judging this variety. Upright branching growth habit, large dark green matt foliage, no disease. Looks like a good new variety in the lavender blends.

FIDELITY, Gr. (McGredy '80). Scarlet (mr), 25-28 petals. E. Cochran (2 pls. 2 yrs. 4½-5', Cal.): Large imbricated blooms, heavy textured petals, decorative form, retains beautiful velvety scarlet-crimson color. Borne 4-5 blooms to a stem and some singly, repeats well, fragrant - a great Grandiflora. Tall vigorous growth habit, dark semi-glossy foliage, disease-resistant.

GOLD MEDAL, Gr. (Christensen '82) (Yellow Pages x (Granada x Garden Party)). Deep golden yellow (dy), 35-40 petals. E. Cochran (2 pls. 4 yrs. 5½' Cal.): Well formed buds, high centered exhibition blooms, great substance, open fast but hold well when cut. In large sprays of 5-6, many one to a stem, floriferous, wonderful fragrance - can be one of the best exhibition and garden varieties - love this beautiful rose. Tall branching growth habit, medium green matt foliage, disease-resistant. J. Ghio (1 pl. 2 yrs. 3-4', Cal.): Exhibition form, OK substance, borne mostly 1 per stem, repeats well, good color - red edges on gold. A very nice rose. Mid-height plant, light green foliage, some disease. Wm. McMahon (2 pls. 2 yrs. 5', Ky.): Classic form, good substance, rich chrome yellow color - finally a really satisfying yellow for garden, arrangers and showing - perhaps the best for showing. Vigorous grower, glossy foliage.

LOVE, Gr. (Warriner '80) (unnamed variety x Redgold). Bright scarlet/silvery white reverse (rb), 35 petals. Mrs. C.W. Beattie (1 pl. 1 yr. 3½-4', Man.): Large high centered exhibition bloom, good substance, some split centers. I like it very much - hope bush becomes larger with age. Glossy large foliage, no disease. B. Biddulph (1 pl. 1 yr. 30", Man.): Short pointed buds, exhibition blooms, double, some fragrance, color more of a very deep pink with silvery white reverse - I love it. Repeats well but didn't have any bloom at show time. Upright grower, shiny attractive foliage, no disease. E.N. Grant (1 pl. 2 yrs. 3½', B.C.): OK form, great color, sparse bloomer. Hard to rate a rose that was weakened by crown gall last year and then expired in our hardest winter in 10 years. M.D. Kirkland (1 pl. 4 yrs. 4',

Ont.): Very good form, good substance, clear cut bi-color - a prize winner. Good growth habit, good foliage, no disease.

SONIA, (Sweet Promise), Gr. (Meilland '74) (Zambra x (Baccara x White Knight)). Pink suffused coral to yellow (pb), 30 petals. G. Blyth (5 pls. 3 yrs. 3', Ont.): Excellent form, good substance, very fragrant, delicate pink color, long stems - a beautiful garden rose. Does not grow as tall as most grandifloras, dark green foliage, no disease, winters well. E.N. Grant (1 pl. 1 yr. 2½', B.C.): Well shaped bloom, good substance, good size, a most attractive rose, sufficient number of blooms for first year. Growth only fair this year but have great hopes for the future. Ample foliage. (Last year for reporting this rose).

SHREVEPORT, Gr. (Kordes '80) (Zorina x Uwe Seeler). Orange blend (ob), 40-55 petals. B. Biddulph (1 pl. 1 yr. 15", Man.): Not exhibition as yet, good substance, great color but sparse bloom and very slow to repeat - hope it reaches expectations next year - don't believe the 'write-ups' yet. Upright grower, very few basal breaks, mid-green foliage with dark stems, no disease. M.D. Kirkland (1 pl. 3 yrs. 6', Ont.): Medium to small size, good form and substance, only fair in my garden - would not repeat. Good growth habit, dark green foliage, no disease, good for hardiness.

SUNDOWNER, Gr. (McGredy '78) (Bond Street & Peer Gynt). Coral-orange (ab), 35 petals. M.A. Cadsby (1 pl. 2 yrs. 3', Ont.): Perfect form, good substance, could use a few more petals but one of the most beautiful roses in the garden - charm! charm! Upright growth habit, ample foliage, no disease, hardiness is good. E.N. Grant (2 pls. 2 & 3 yrs. 5½', B.C.): Usually good form, good substance, mostly singles on very thorny stems but blooms last extremely well and do not fade. A stunner - bloomed well after a slow start - came through hardest freeze in 10 years. Foliage a bit sparse, mildew prone. R.J. Kopecky (1 pl. 4 yrs. 4', Neb.): High centered bloom, sometimes exhibition, very good substance. Moved it to improve production which it did in spite of miserable conditions last winter and spring - have ordered more. Upright tall growth habit, some blackspot. E. Ouellette (1 pl. 4 yrs. 5½', Que.): Medium size bloom, H.T. form, excellent substance, buds open slowly with some colour change with age and dull weather, fragrant. Tallest rose in my garden - single blooms at top of long canes sway in the wind. Would like more blooms for floral work - one bush isn't enough. Upright grower, few basal breaks, dark leathery large foliage, no disease, winters well. G.J. Patterson (1 pl. 3 yrs. 5', Ont.): Fair form, a little loose, fair substance, rather striking bloom. Attractive if only more blooms and faster repeat. Vigorous grower, medium foliage, no disease, hardiness is OK. G.W. Shewchuk (2 pls. 5 yrs. 2½-3', Alta.): Large double bloom, good exhibition form, good substance, fragrant, but poor bloom repeat. Blooms borne mainly singly. Very few basal breaks, large medium green glossy foliage, no disease, hardy with my method of planting and winter protection.

WHITE LIGHTNIN', Gr. (Swim & Christensen) (Angel Face x Misty). Clear white (w), 26-32 petals. B. Biddulph (1 pl. 1 yr. 18-20", Man.): Lovely hybrid tea type bloom, exhibition quality, excellent substance, holds beautifully on bush and as cut flower. 14-18 blooms at one time and repeats fairly well. Sorry I didn't have a bloom at show time - only buds, but they

were lovely. Bushy spreading growth habit, shiny attractive foliage, no disease. E.N. Grant (1 pl. 2 yrs. 3', B.C.): A1 form, lots of substance, fragrant, fair number of clusters - really more like a floribunda in my garden. Lost this nice rose in our 'heavy' winter which took or seriously set back 20% of my roses. Foliage OK, some mildew. M.D. Kirkland (1 pl. 3 yrs. 3', Ont.): Only fair form, good perfume - will discard. Purveyor of blackspot - affects nearby roses. G.W. Shewchuk (2 pls. 2 yrs. 2½', Alta.): Small bloom, exhibition form, good substance, delectable fragrance, good repeat. Medium green glossy foliage, no disease. Hardy with my method of plant and winter protection.

FLORIBUNDAS

AMY BROWN, FI. (Harkness '79). No reports.

ANNE HARKNESS, FI. (Harkness '79) ((Bobby Dazzler x (Manx Queen x Prima Ballerina)) x (Chanelle x Piccadilly)). Deep saffron yellow (my), 28 petals. E. Cochran (2 pl. 4 yrs. 4-5', Cal.): Large conical trusses of decorative blooms open continually, very good substance holds blooms well when cut, non-fading golden apricot color, fruity fragrance. Upright branching growth habit, Irish green foliage, disease resistant - one of the best garden bloomers and exhibits well. C.D. Yeomans (1 pl. 2 yrs. 3', B.C.): Large trusses of HT-shaped deep apricot blooms, good foliage, starts blooming late. Hardiness suspect.

BAD FUSSING, FI. (Kordes '80). Scarlet, 10 petals. E.W. Hillier (1 pl. 1 yr. 4½', Ont.): Large trusses of bloom, fair form and substance, strong substance - can smell it a block away. Nice rose to cut for table decoration or to wear. Good growth habit, good foliage, no disease. Hardiness is good. G.W. Shewchuk (2 pls. 3 yrs. 2', Alta.): Long lasting bloom, lots of color, good form, very good substance - a very good bedding rose. Glossy dark green foliage, no disease, hardy with my method of planting and winter protection.

BORDURE ROSE, FI. (Delbard '79). No reports.

BRIGHT SMILE, FI. (Dickson '80). No reports.

BURGHAUSEN, FI. (Kordes '76). Chinese red (or), 35 petals. J. Ghio (1 pl. 5 yrs. 3', Cal.): Large trusses of bloom, semi-double form, OK substance - a nice variety that produces masses of color. Wavy petals, repeats fast. Short grower, bronzy foliage, mildews.

BURMA STAR, FI. (Cocker '74) (Arthur Bell x Manx Queen). Light amber (dy), 22 petals. G.W. Shewchuk (1 pl. 6 yrs. 4½', Alta.): Double 3½'' bloom, good form and substance, good repeat. Tall grower, large medium green glossy foliage, no disease, hardy with my method of planting and protection. (Last year for reporting this rose).

CAPTAIN COOK, FI. (McGredy '77) (Irish Mist x Seedling). Brilliant orange salmon (ob), 10-15 petals. M. Humenick (1 pl. 6 yrs. 3', Cal.): Decorative loose form, wavy petals, average substance, opens fast in the heat. Best

attribute is the intense color. Compact grower, dark green foliage, no disease.

CATHEDRAL (COVENTRY CATHEDRAL), Fl. (McGredy '75). No reports.

CHAMPAGNER, Fl. (Kordes '83). Creamy white/yellow base (w), 25-30 petals. E. Cochran (1 pl. 1 yr. 3½', Cal.): Exhibition form with high spiral centers and quilled petals, good substance, borne in clusters - has performed outstandingly for first year rose. Will increase this beauty. Upright branching growth habit, dark green leathery foliage, clean so far.

CHARISMA, Fl. (E.G. Hill Co. '77) (Gemini x Zorina). Scarlet & yellow (rb), 35-45 petals. B. Biddulph (1 pl. 3 yrs. 15-44", Man.): Garden form, good substance, in clusters, repeats well. Went beserk in August with one 44" tall, thick robust stem with branches of bloom on either side of the top three feet - still loaded with short branches holding 5-8 blooms each - most unusual. Glossy leathery foliage, no disease, hardiness is good. (G. Blyth (1 pl. 1 yr. 30", Ont.): Excellent form and substance, double bloom, long lasting - very attractive floribunda but blooms must be cut before they fade as they do not drop their petals. Good growth habit, no disease, winters well. M.A. Cadsby (1 pl. 2 yrs. 12", Ont.): Small, brightly colored, fair form. Charisma - has none! E. Caldwell (1 pl. 1 yr. 21", Ont.): Full form, very double in sprays of bloom, long lasting, floribunda. I love this rose - bloom and foliage really stand out in rose bed. New buds opening mid-October. Upright grower, shiny foliage edged red, fairly resistant to blackspot.

CHERISH, Fl. (Warriner '80) (Bridal Pink x Matador). Soft coral pink (mp), 25-30 petals. Mrs. C.W. Beattie (1 pl. 2 yrs. 3-3', Man.): Beautiful bloom, large for a floribunda, good form, excellent substance, repeats well - I like it very much. Low spreading growth habit, good foliage, no disease, wintered well. B. Biddulph (1 pl. 1 yr. 20", Man.): Small bloom, not too attractive, high centered but a bit ragged, squatty bud, fair substance. Not many basal breaks, second growth strong thick canes - a bit disappointing - hope for better things next year. M.A. Cadsby (1 pl. 2 yrs. 2'6", Ont.): H.T. type form, excellent substance. Compact growth habit, no disease, hardiness is good. Cherish & Honour made the grade - scratch Love. M. Humenick (2 pls. 6 yrs. 2½', Cal.): Large bloom, exhibition form, great substance, fragrant, holds well when cut and on plant, exceptional color. Sprays or clusters are few and far between but good producer. Compact growth habit, dark green foliage, no disease. E. Ouellette (2 pls. 1 yr. 2', Que.): Clusters of large blooms, exhibition form, excellent substance, non-fading color, fragrant, long lasting. Good number of blooms early in season - none in late August and September - probably due to cool changeable weather after heat wave. Just about the best new addition to my garden - good for arranging, buds hold well in bridal bouquets. Compact bush, dark green foliage, no disease. G.W. Shewchuk (2 pls. 3 yrs. 2', Alta.): Large sprays of flowers, excellent form and substance, profuse bloomer, cinnamon fragrance - does very well in my garden. Glossy dark green foliage, no disease, hardy with my method of planting and protection.

CHORUS, Fl. (Meilland '75). No reports.

CITY OF PORTSMOUTH, Fl. (Cants '75) (Arthur Bell x Seedling). Coppery salmon (ob), 25 petals. J. Ghio (1 pl. 4 yrs. 3', Cal.): Semi-double form,

average substance, different coloring but poor lasting qualities. Many 1 per stem, repeats fast. Tall grower, sparse foliage, some disease.

CONFETTI, FI. (Christensen '79). Orange blend (ob) 20 petals. M. Humenick (5 pls. 4 yrs. 3', Cal.): Decorative form, opens fast and flat, good substance, blooms redden with age and hang on too long. Would make a good border or hedge - really best from a distance. Erect grower, dark green foliage, no disease.

CONGRATULATIONS, FI. (Kordes '79). No reports.

CORNATION GOLD, FI. (Cocker '78). No reports.

DAME OF SARK FI. (Harkness '76). No reports.

DEEP PURPLE, FI. (Kordes '78) (Zorina x Silver Star). Mauve-pink (m), 30-45 petals. M. Humenick (1 pl. 5 yrs. 3', Cal.): Decorative form, good substance, rich deep lavender color, opens fast, some sprays and many one bloom per stem. A dependable rose. Erect tall grower, dark green foliage, no disease.

DOUBLE TALK, FI. (Weeks '81). Red/white reverse (rb). M. Humenick (1 pl. 4 yrs. 2½', Cal.): Semi-double decorative form, good substance, good color contrast, many clusters, holds well, good repeat. Should look good in the border. Short growth habit, dark green foliage, no disease.

ENGLISH MISS, FI. (Cants '77). No reports.

EVENING STAR, FI. (Warriner '74) (White Masterpiece x Saratoga). Pure white/cream center, 42 petals. E. Ouellette (1 pl. 1 yr. 2', Que.): Large bloom for a floribunda, high centered H.T. form, excellent substance, fragrant, long lasting, holds shape well. Good color for floral work. Upright bushy plant, clean. (Last year for reporting this rose).

EYE PAINT, FI. (McGredy '74) ((Little Darling x Goldilocks) x (Evelyn Fison x (R. macrophylla coryana x Tantau's Triumph)) x Picasso). Scarlet with white eye (rb), 7 petals. J. Ghio (1 pl. 5 yrs. 5-6', Cal.): Single bloom, OK substance, in huge trusses - really should be classed a shrub. Tall 'cclimber-like' growth habit, small foliage, no disease. E. Ouellette (1 pl. 6 yrs. 4', Que.): Small single blooms in clusters, decorative form, good substance, eye catching color, always some bloom, repeats well, an attractive novelty. A big cluster fills an entire vase with bright color, lasting quite well. New basal breaks make it necessary to tie to stakes to prevent falling over smaller bushes. No disease, hardiness is good. (Last year for reporting this rose).

FAIR PLAY, FI. (Inter Plant '77). No reports.

FIRST EDITION, FI. (Delbard '76) (Zambra x Seedling). Coral salmon (ob), 28 petals. B. Biddulph (1 pl. 3 yrs. 12", Man.): Cupped form, good substance, bright pleasing color, fairly consistent number of blooms but not numerous, holds well. Striking bloom, very slight fragrance. Low compact growth habit, light green glossy foliage, some blackspot, hardiness is good.

FLEURETTE, FI. (Inter Plant '77). No reports.

FLUORESCENT, FI. (Delbard). No reports.

FRAGRANT DELIGHT, FI. (Wisbech Plant Co. '78) (Chanelle x Whisky Mac). Salmon pink (ab), 18-25 petals. C. Decker (1 pl. 1 yr. 2', Alaska): Semi-double bloom, loose form, fair to good substance, abundant bloomer but only one to a stem, slightly fragrant. Will have to re-evaluate next year along with Markaret Merrill which acted similarly altho more petals and a taller plant. Spreading growth habit, healthy reddish foliage, no disease.

FRENCH LACE, FI. (Warriner '81) (Golden Wave x Bridal Pink). White (w), 30 petals. M.A. Cadsby (1 pl. 1 yr. 3', Ont.): H.T. type form, good substance, blooms have considerable charm - would like to see more of them in second year. Bushy grower, ample foliage, no disease. E. Cochran (2 pls. 4 yrs. 4½', Cal.): Buds borne in large clusters on stiff canes, blooms frilly around edges with wide petals, exhibition quality form, excellent substance, very floriferous, outstanding fragrance. In a class by itself, outstanding. Upright branching growth habit, dark leathery holly-type foliage, disease resistant. C. Decker (3 pls. 3 yrs. 2', Alaska): High-centered form bloom, opens flat, large - 4-5", in small clusters, average repeat. Usually ends up only 1 or 2 canes but seems to be improving with age. Spreading growth habit, healthy foliage. M. Humenick (3 pls. 4 yrs. 3', Cal.): Formal exhibition form, excellent substance, color quite pink in cool weather, fragrant. Produces plenty of bloom in clusters and one per stem. Everyone should be growing this great floribunda - a favourite in our public gardens. Compact thick growth habit, dark green attractive foliage, no disease. E. Ouellette (2 pls. 1 yr. 2½', Que.): H.T. exhibition form, excellent thick substance, frilled petal edges, pointed buds, centers open to slight blush pink - slowly, some green stripes on outer petals. Blooms singly and in clusters on long strong stems, repeats well - I've never been so excited about any rose before this one - has everything! Tops for wedding bouquets and corsage work. Blooms hold up all day in oasis or wired, good companion for Iceberg. Bushy grower, shiny dark leathery green foliage, no disease.

GABRIELLA, FI. (Kordes '77). No reports.

GINA, FI. (Kordes '77). No reports.

GINGERSNAP, FI. No reports.

GLENFIDDICH, FI. (Cocker '76) (Seedling x (Sabine x Circus)). Golden amber (dy). 25 petals. E.N. Grant (1 pl. 3 yrs. 3½', B.C.): A1 form, good substance, mostly singles which open very well into golden 4" flowers - most attractive but fleeting. Much better this year despite being moved - a nice rose. Compact grower, OK foliage. E. Ouellette (1 pl. 9 yrs. 3½', Que.): Lovely bud opens fast then fades. Loose form, average substance, small flowers, borne singly - not very special. Color deepens in cooler weather. Hasn't improved in quantity of bloom in 9 years in my garden - should replace. Upright grower, dark green foliage, some blackspot, winters well.

GOLD BUNNY, FI. (Paolino '78). No reports.

HONEYMOON, FI. (Delbard - not registered). No reports.

IMPATIENT, FI. (Warriner '84) (Climbing America x unnamed Seedling). Orange red (o-r). 20-25 petals. C. Decker (2 pls. 1 yr. 2', Alaska): Large bloom, cupped form, frilly, excellent substance, in small clusters, abundant

bloomer, average repeat. Long lasting and non-fading, fragrant. One plant sent up only single blooms. Upright grower, healthy foliage. I like the color. J. Ghio (2 pls. 2 yrs. 3', Cal.): Semi-double form, OK substance, in singles and clusters, nice wavy petals. Repeats fast. Short growth habit, dense foliage. M. Humenick (2 pls. 2 yrs. 2', Cal.): Decorative form, excellent substance, intense rich orange color, many cluster-bloom canes - underestimated in its first year. Short dense grower, thickly foliated - an excellent hedge. Bronzy-red new growth foliage is quite attractive. No disease. J. McKenzie (5 pls. 1 yr. 3', Ont.): Loose cupped form, good substance, fairly large bloom - approximately 2½-3", mild fragrance, bright color, 3 flushes of bloom this year - a vigorous, neat, quick to repeat cultivar. Upright grower, shiny green foliage then dark, good disease resistance. I rate this rose 7.5. G.W. Shewchuk (1 pl. 1 yr. 2½, Alta.): Excellent form, good substance, 3" blooms, in large clusters, very showy - I am impressed with this floribunda. Prolific bloomer. Glossy dark green foliage, no disease.

INTERAMA, FI. (de Ruiter '76) (Kohima x (Europeana x Limono). Dark red (dr), 18 petals. M. Humenick (2 pls. 3 yrs. 2', Cal.): Decorative form, good substance, opens fast but holds color. Lots of canes with heavy trusses, good repeat bloom - good for the landscape. Medium height plant, dark green foliage, no disease.

INTRIGUE, FI. (Warriner '84) (White Masterpiece x Heirloom). Mauve (m), AARS '84. C. Decker (1 pl. 1 yr. 2', Alaska): Small clusters of 4", high centered blooms, good substance, bright plum color, fairly quick to repeat. Got a late start for me - do like its color and fragrance - color might not hold up under hot sun. Upright grower, dark foliage, no disease. M. Humenick (3 pls. 3 yrs. 2', Cal.): Decorative form, excellent substance, buds show promise of good form in cool weather, color is intriguing - very unusual. Truly a fruity rose - color of plums or grapes and fragrance of a lemon. Lots of cluster bloom, holds up in the heat, even has interesting stamens. Short dense growth habit, dark green foliage, no disease. J. McKenzie (2 pls. 1 yr. 3-4', Ont.): Medium sized semi-double bloom, high centered form at first, then flattens, very good substance, 3 flushes of bloom this year. This clean, shapely cultivar is and looks very healthy, pleasing lemony old rose fragrance. Excellent compact growth habit, glossy foliage, very resistant to fungus and insects. I rate this rose 8.5.

JAQUAR, FI. (Spek '77). No reports.

JEAN THOMPSON HARRIS, FI. (Cocker '76). No reports.

JUDY GARLAND, FI. (Harkness '79). No reports.

KAPAI, FI. (McGredy '77). No reports.

KATHERINE LOCKER, FI. (Swim & Christensen '78) (Zorina x Golden Wave). Medium golden yellow (my), 25-30 petals. M. Humenick (2 pls. 5 yrs. 2½', Cal.): Excellent show form, good in its color class, good substance. Trusses very heavy - canes too weak. Rangy sprawling growth habit, medium green foliage, no disease.

LAPPONIA, FI. (Tantau '78). No reports.

LAVAGLUT, Fl. (Kordes '78) (Gruss an Bayern x unnamed Seedling). Dark red (dr). 24-37 petals. R.F. Johnson (1 pl. 2 yrs. 40", Que.): 2½" bloom, flat form, good substance, large clusters of up to 15, continuously in bloom, long lasting and unfading. Tall upright grower, dark green slightly glossy foliage, no disease, hardiness very good.

MARGARET MERRIL, Fl. (Harkness '77) ((Rudolph Timm x Dedication) x Pascali). Pearly blush/opens white (w), 28 petals. E. Cochran (3 pls, 4 yrs. 4½', Cal.): Long urn shaped buds, exhibition form bloom, opens fast but lasts well in full bloom with long yellow stamens, outstanding substance, lovely fragrance. Borne in clusters of 3-5, many one to a stem. The best white floribunda and perfumes the garden like no other. Upright branching grower with husky long stems clothed with the best of foliage, very disease resistant.

MARINA, Fl. (Kordes '74) (Colour Wonder x Seedling). Orange/yellow base (ob). E. Cochran (2 pls. 5 yrs, 4', Cal.): Long buds, high centered H.T. form, heavy substance, borne in clusters and one to a stem, excellent repeat, lightly fragrant. Planted them in a bed of o-rs - great garden color, everyone likes these shades. Exhibits well. Upright bushy grower, glossy leathery green foliage, disease resistant. C. Decker (1 pl. 4 yrs. 3½', Alaska): H.T. type bloom, excellent substance, smallish in size, long lasting, borne in sprays which are large but open - too open for exhibition. Abundant bloomer, excellent for garden color. Tall for a floribunda here, no disease. (Last year for reporting this rose).

MARY SUMNER, Fl. (McGredy '76). No reports.

MATANGI, Fl. (McGredy '74). No reports. (Last year for reporting this rose).

MEMENTO, Fl. (Dickson '78) (Bangor x Anabell). Begonia red (rb), 22 petals. C.D. Yeomans (1 pl. 3 yrs. 2'6", B.C.): Very healthy, unusual very pleasant color, but has not grown much.

MERCEDES, Fl. (Kordes '75). Orange red (or). R. Pattinson (1 pl. 3 yrs. 30", Ont.): 4" reddish orange with dirty face, confused centers, poor substance, poor bud. In my garden it was very poor and not worth growing but does last 3 weeks after cutting. Upright grower, large leathery foliage, quite disease resistant, hardiness good.

MONA LISA, Fl. (Kordes '79). Sunshine yellow/pink edge, 34 petals. M. Humenick (1 pl. 5 yrs. 3', Cal.): Decorative form, good substance, holds well when cut, looks great in bouquets - could be a little bit more productive. Thick dense grower, dark green foliage, no disease.

MONTANA, Fl. (Tantau '75). No reports.

MOUNTBATTEN, Fl. (Harkness '82) (Peer Gynt x (Anne Cocker x Arthur Bell) x Southampton). Medium yellow (my). M.A. Cadsby (2 pls. 2 yrs. 3', Ont.): Looks like a yellow peony, fair form - you don't see yellow peonies very often. Upright grower, pale green foliage, no disease, hardiness is good.

MUCHACHA, FI. (Meilland '77). No reports.

NEW FACE, FI. (Inter Plant '77). No reports.

NICOLA, FI. (Gandy '81). No reports.

ORANGE WAVE, FI. (Kordes '83). Not registered in USA. Orange. M. Baillie (1 pl. 1 yr. Ont.): Semi double form, good substance, very bright color, lasts well without fading. I thought it was a charming rose but would like to see more of them - will wait another year. Low growth habit, good foliage, disease-free. C. Caldwell (1 pl. 1 yr. 2', Ont.): Loose single form, good substance, orange color holds very well - very bright spot in garden. Did not repeat too well - will see next year. Upright growth habit, medium green foliage, some blackspot.

OVERTURE, FI. (Gandy '78). No reports.

PATRICIA, FI. (Kordes '76). No reports.

PAUL SHIRVILLE, FI. (Harkness '83) (Compassion x Mischief). Pink/yellow base, 35 petals. E. Cochran (1 pl. 1 yr. 3½', Cal.): Medium size bloom, semi-exhibition form with rounded petals, just fair substance, loses form and substance after two-thirds open. Repeats well but I am disappointed with this new variety. Upright branching growth habit, medium green matt foliage, mildews.

PILLOW TALK, FI. (Weeks '81). Mauve (m). M. Humenick (1 pl. 4 yrs. 2', Cal.): Decorative form, good substance, unusual color - sort of a blend, soft, but gets muddy before petals fall. Low grower, fairly good repeat bloom - could be used in a border of mixed colors. Small medium green foliage, no disease.

PLAYBOY, FI. (Cocker '76) (City of Leeds x (Chanelle x Piccadilly)). Scarlet and gold (rb), 10 petals. E. Cochran (2 pls. 2 yrs. 5½', Cal.): 3½" bloom, decorative form, very heavy substance, borne several to a stem and 5-7 that open at the same time, very stable color. One of the flashiest floribundas in the garden and on the show table. Always in bloom with such brilliant beauties, fragrant. Upright branching growth habit, dark glossy foliage, disease-resistant. M. Humenick (2 pls. 6 yrs. 4', Cal.): Decorative form, superb substance, very showy - garden visitors are always impressed. Large trusses, excellent color combination, has color constantly. Erect grower, very shiny attractive foliage, no disease.

POLYGOLD, FI. (Tantau '79). No reports.

PRINCESS MICHAEL OF KENT, FI (Harkness '80). No reports.

PRISCILLA BURTON, FI, (McGredy '78) (Maxi x Evelyn Fison x (orange Sweetheart x Fruhlingsmorgen) x (Little Darling x Goldilocks) x (John Church x Elizabeth of Glamis)). Deep carmine/silver eye (rb), 10 petals. M. Baillie (1 pl. 4 yrs. 5', Ont.): Semi-double bloom, good substance, overcrowded - borne on single stems but sparsely. Too bad because when it is good it's very good. Tall grower in fall, reddish foliage, no disease, good for hardiness. E. Cochran (2 pls. 4 yrs. 3', Cal.): Very nice buds, decorative form bloom, excellent substance, in clusters - becoming more floriferous. A

lovely hand painted beauty - beautiful on 30" trees. Good fragrance that lasts. Upright spreading growth habit, semi-glossy foliage, no disease. M. Humenick (1 pl. 2 yrs. 2½', Cal.): Decorative form, good substance, opens fast and flat to reveal interesting color contrast - an eyecatcher. Deeper red than Old Master. Short dense grower, medium green foliage, no disease.

REGENSBURG (YOUNG MISTRESS) Fl. (McGredy '79). (Geoff Boycott x Old Master). Pink and white hand painted, 21 petals. M. Baillie (1 pl. 2 yrs. 15", Ont.): Semi-double plant at front of border - very low growing. Good foliage, disease free, winters well. M.A. Cadsby (1 pl. 4 yrs. 2', Ont.): Semi double, good substance, colorful hand painted bloom, a quick repeater. Good for bedding. Spreading growth habit, no disease, very hardy. E. Caldwell (1 pl. 1 yr. 14", Ont.): Tiny palest pink buds open to pink with white edge, small semi-double bloom, very interesting. Repeats very well, new shoots appear quickly so lots of bloom. Compact low grower, attractive red edged foliage, some blackspot. C. Decker (1 pl. 1 yr. 18", Alaska): Very pretty bloom half open to full open, definitely hand painted, good substance, excellent color, petals fall cleanly. Never without bloom, borne in large trusses, rarely 1-3 on a stem. Should be excellent as a border plant, compact short grower, serrated foliage, some blackspot but no mildew. J. Ghio (1 pl. 3 yrs. 2-3', Cal.): Semi-double form, OK substance, short stems, many small clusters - really a beautiful compact grower. The best all-round 'hand-painted' type. Small foliage, no disease. M. Humenick (1 pl. 5 yrs. 2', Cal.): A very pale pink-lavender with white, decorative form, good substance, a popular novelty but would be nice if old petals shed cleanly and a little earlier. Sprawling growth habit - seems to want to hug the ground. Medium green foliage, no disease. E. Ouellette (1 pl. 2 yrs. 20", Que.): Semi-double bloom, flat cuppish form, average substance, lots of clusters - 5-7 open blooms at some stage, repeats well. Spent blooms look messy - have to remove whole spray. Very floriferous - when you cut it it throws out another spray quickly - like it very much. Compact grower, small medium green foliage, no disease, wintered well.

ROCKY, Fl. (McGredy '77). No registered in USA. Orange and white, 22 petals. J. Ghio (1 pl. 1 yr., Cal.): Flat form, OK substance, lovely color and flowers, ruffled, in clusters, repeat fast. I understand this is classed as a climber? Small foliage, no disease. C.D. Yeomans (1 pl. 3 yrs. 4', B.C.): Healthy, big sprays, striking color combination, needs some support. I like it!

ROSAMUNDE, Fl. (Kordes '78). No reports.

ROSE PARADE, Fl. (Williams '74). No reports. (Last year for reporting this rose).

ROSI MITTERMAIER, Fl. (Kordes '77). Orange red (o-r), 25 petals. J. Ghio (1 pl. 4 yrs. 2-3', Cal.): Semi-double bloom, ruffled petals, OK substance, many large trusses. A pretty compact floribunda. Bronzy foliage, no disease. M. Humenick (1 pl. 4 yrs. 3', Cal.): Decorative form, excellent substance, good size clusters, repeats well. Holds well in bouquets - useful to arranger. Dense grower - medium green foliage, no disease. E. Ouellette (1 pl. 4 yrs. 1½', Que.): Semi-double decorative form, average substance, clusters open in neat sprays, good to repeat. Can count on Rosi to provide

bright splash all season long in border - some fading in hot weather. Low bushy grower, medium green foliage, healthy, no problems with hardiness.

SCHERZO, FI. (Meilland '74). No reports. (Last year for reporting this rose).

SCHLOSS MANNHEIM (CASTLE MANNHEIM), FI. (Kordes '74) (Marlena x Europeana). Scarlet (or). G.W. Shewchuk (2 pls. 3 yrs. 2', Alta.): Good form, very good substance, double bloom, lots of bloom, long lasting - one of my best floribundas. Slightly fragrant. Low bush, glossy dark leathery foliage, no disease, hardy with my method of planting and winter protection. (Last year for reporting this rose).

SHOW BIZ (INGRID WEIBULL), FI. (Tantau '81). Dark red (dr), 1985 AARS. E. Cochran (2 pls. 3 yrs. 2½-3', Cal.): Small 2½" bloom, decorative form, outstanding substance, brilliant non-fading scarlet-crimson, reverse lighter - can be seen for blocks. Borne 5-8 in large trusses, great lasting quality, blooms almost cover the plant. A must for borders and patio accent plantings. Compact bushy grower, glossy semi-holly type foliage, fully disease resistant. M. Humenick (1 pl. 1 yr. 1', Cal.): Decorative form, excellent substance, opens fast but holds color well, useful to landscaper - will make a good border. All exhibitors express amazement that this was selected to be an AARS. Very short growth habit, dark green foliage, no disease.

SIMPLICITY, FI. (Warriner '79) (Iceberg x unnamed cultivar). Medium pink (mp), 18-20 petals. M. Humenick (24 pls. 5 yrs. 3-4 ft. Cal.): Loose petalled decorative form, great substance, lots of sprays and repeats often. Try to keep spent blooms cut for better production. For the landscape as a hedge, rates high in dependability. Erect thick growth habit, medium green foliage, no disease.

SPANISH SHAWL, FI. (Not registered). Salmon orange/white edges. E. Caldwell (1 pl. 1 yr. 14", Ont.): Semi-double bloom, doesn't last long but more come quickly. Color is big attraction - in my garden it was a light to mid-red, edged white. Low growth habit, medium green foliage, some black-spot. E. Ouellette (3 pls. 1 yr. 2¼', Que.) Medium size bloom, 15 petals, hand painted, slightly ruffled. In clusters of 3 to 5 blooms, open fairly flat, thick substance, some fragrance. Well named. Slow to bloom 1st year but continuous all summer, tolerates heat with slight fading, drops petals slowly. Lovely novelty and a good bedding rose, bright color, very attractive. Upright grower with strong canes, dark green foliage turns reddish in fall, no disease, very good for hardiness.

STAD DEN HELDER, FI. (Inter Plant '79). No reports.

SUE LAWLEY, FI. (McGredy '78). Red/pink, 15-20 petals. M. Baillie (1 pl. 1 yr. 14", Ont.): mid-size, cupped semi-double bloom, excellent substance, in beautiful clusters, particularly in fall. Decorative rose - charming hand painted rose if you like them - I do! Spreading growth habit, good foliage, disease-free. J. Ghio (1 pl. 3 yrs. 2-3', Cal.): Semi-double form, OK substance, mostly 1 per stem, drops petals fast, slow repeat. Most striking of the 'hand painted' roses. Medium grower, small foliage, mildews. M. Humenick (1 pl. 1 yr. 2½', Cal.): Decorative form, good substance, soft

red - more an orange blend. Only saw one bloom period in early spring. Ordered Spanish Shawl at same time - plants alike as well as bloom. New growth distorted, deep red, and bud that tried to open - never did. Had read about how well it does in Canada - perhaps I should grow it in shade. Others have experienced same thing. Short grower, no disease. R.F. Johnson (1 pl. 2 yrs., Que.): Decorative sem-double bloom, fair substance. In my garden color is not red and pink - more like an orange and white Regensburg but larger and on a taller bush - could it be wrongly labelled? No disease, hardy with protection. G.W. Shewchuk (1 pl. 2 yrs. 2½', Alta.): Very striking color contrast, bright red edged with pink and pink reverse. Good form and substance, semi-double open bloom in sprays, good repeat. Pink edging and center become much wider on blooms in August and September. Glossy medium green foliage, no disease, hardy with my method of planting and winter protection. C.D. Yeomans (1 pl. 2 yrs. 4', B.C.): A beautiful healthy rose. Flowers are fleeting but there are plenty of them, has some big sprays.

SUE RYDER, FI. (Harkness '80) (Southampton x (highlight x Color Wonder) x (Parkdirektor Riggers x Piccadilly)). Orange/yellow reverse (ob), 33 petals. E. Cochran (1 pl. 1 yr. 3½', Cal.): Medium size bloom, semi-exhibition and garden form, fair substance, blooms borne several to a stem. May be a great rose next year - so far just another rose. Upright grower, medium green matt foliage, some mildew.

SUN FLARE, FI. (Warriner '82) (Sunsprite x unnamed seedling). Medium yellow (my), 27-30 petals. AARS 83. E. Cochran (3 pls. 4 yrs. 3½', Cal.): Many long buds open to decorative blooms in large clusters, good substance, great border variety, drops petals cleanly, spicy fragrance. Non fading rich golden-yellow color in most weathers. Strong bushy grower, dark leathery foliage, disease-resistant. C. Decker (4 pls. 2 yrs. 2', Alaska): Loose form, abundant bloom, average repeat, good to fair substance, always in bloom in garden, color fades but still attractive. Compact grower, no disease. M.D. Kirkland (1 pl. 2 yrs. 2½', Ont.): Just beautiful in bud and ½ open, good form and substance. I love this floribunda - will get more. Good growth habit, shiny green very outstanding foliage, no disease.

SUNSILK, FI. (Fryers '74) (Pink Parfait x Red Gold seedling). Lemon yellow (my), 30-35 petals. J. Ghio (1 pl. 5 yrs. 4', Cal.): Exhibition form, OK substance, many petals, borne 1 per stem and in clusters, abundant bloomer - a lovely creation and a super rose for exhibition. Tall grower, light green foliage, some mildew and does rust easily. (Last year for reporting this rose).

SUNSPRITE (FRIESIA, KORESIA), FI. (Kordes '77) (Unnamed cultivar x Spanish Sun). Bright golden yellow (dy), 25-30 petals. R.J. Kopecky (2 pls. 2 yrs. 2½', Neb.): Exhibition form, very good substance, clusters constantly for me. Yellow roses are not supposed to be hardy but this little gem came through unscathed without any cover, excellent crop of bloom all season - will increase. Bushy growth habit, no disease noted, excellent for hardiness. E. Ouellette (2 pls. 5 yrs. 2', Que.): Decorative semi-double form, average substance, H.T. type buds open quickly, usually singly, to frilled flat form, shatters cleanly, repeats quickly. Beauti-

ful color - a pity blooms fade so quickly. Can be shown at just the right moment, but showy as a garden rose. Dense bushy upright growth habit, green shiny foliage, no disease, hardy.

SWANY, FI. (Meilland '78). No reports.

TRAIL BLAZER, FI. (Harvey '75). No reports.

TRUMPETER, FI. (McGredy '77) (Satchmo x seedling). Brilliant orange red (o-r), 39 petals. C. Decker (1 pl. 2 yrs. 2', Alaska): Large clusters in open European fashion, excellent substance. A bright spot in any garden, a taller bush than Europeana. Upright grower, reddish foliage, no disease. R.J. Kopecky (1 pl. 3 yrs. 2½', Neb.): Flattish bloom, typical floribunda form, very good substance. Survived our harsh winter without any cover and did an excellent job of producing blooms all summer long. Good garden rose. Sprawling growth habit, some blackspot.

VIERLANDERIN, FI. (Kordes '83) (Zorina x Zorina x Rosenelfe). Medium pink, 40 petals. E. Cochran (1 pl. 1 yr. 3½', Cal.): Clear pink, tones of yellow at base, lighter reverse. Exhibition bloom, quilled petals, star shaped form, very good substance. 5-7 in a cluster. A perfectly lovely rose - quality has been outstanding in this its first year. Upright grower, medium green leathery foliage, disease resistant so far.

YESTERDAY, FI. (Harkness '74). No reports. (Last year for reporting this rose).

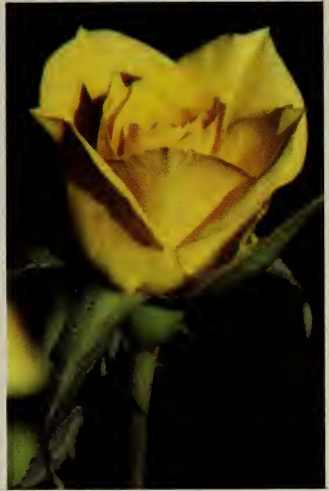
LARGE FLOWERED CLIMBERS

AMERICA, LCI. (Warriner '76) (Fragrant Cloud x Tradition). Soft peach apricot (o-r), 25 petals. E.N. Grant (2 pls. 2 & 3 yrs. 6', B.C.): Near perfect little HTs, good substance, ample singles and clusters all season, very long lasting on the bush or cut for the house. This is our favourite in the whole garden, great unfading color, fragrant, nearly always in bloom - may not really be a climber but who cares? Upright grower, very clean ample foliage. E. Ouellette (1 pl. 3 yrs. 4½', Que.): Excellent H.T. form, very good substance, several clusters, long lasting, slight fading with maturity, repeated several times. Have cut this climber back each year and it bounces back. Treat it like a tall H.T. Always has some blooms, color unaffected by weather. Upright grower, strong abundant medium green foliage, no disease. Winters well.

DUBLIN BAY, LCI. (McGredy '75) (Bantry Bay x Altissimo). Scarlet crimson (mr), 26 petals. J. Ghio (1 pl. 6 yrs. 8', Cal.): Ruffled semi-double form, good substance, very bright color, many trusses and 1 per stem. Repeats fast, excellent climber. Bronzy foliage, mildews.

GRANDESSA, LCI. (Delbard '76). No reports.

JOHN CABOT, K. (Svejda '78) (R. Kordesii x unnamed seedling). Medium red, 40 petals. E. Ouellette (1 pl. 2 yrs. 6', Que.): Open faced bloom opens flat, very good substance, good resistance to weather, plenty of buds to replace spent blooms, fragrant, in clusters of 7-10. Has grown another 2 ft.



Symbol of ROSECAPADES '85
and the photograph of 'GOLD MINE' that inspired it.



GOLD MINE Min.
(Laver - Canada - 1985)

the rose chosen to celebrate the meeting in Canada of
the World Federation of Rose Societies

in each direction this year with an enormous number of clusters of lovely red blooms on arching branches like a decorated Christmas tree. Upright grower, yellow green foliage, no disease, no winter protection.

LAVINIA, LCI. (Tantau '82). No reports.

PINATA, LCI. (Suzuki '78). No reports.

ROSARIUM UETERSEN, LCI. (Kordes '78) (Karlsruhe x seedling). Deep pink (dp), 142 petals. M.A. Cadsby (1 pl. 3 yrs. 6', Ont.): Ruffled form, bloom not adequate this year. A discard plant - probably suffered from winter kill. This rose doesn't have any personality for me. J. Ghio (1 pl. 6 yrs. 7', Cal.): Old fashioned form, good substance, in clusters, repeats fast, a super climber, green apple fragrance. Dense foliage, no disease. A. Leskiw (1 pl. 5 yrs. 36", Sask.): 3" very double bloom, super form, excellent substance, bloomed sparsely but suffered from excessive dry hot weather. I like it much better this year - grew new canes from bottom. It isn't fair to evaluate any rose under our hot dry weather conditions. Spreading growth habit - should be retained, holly-like foliage, no disease, excellent for hardiness - only mounded with 12" of soil.

SHRUBS

ADELAIDE HOODLESS, S. (H.H. Marshall '75). No reports.

ANGELINA, S. (Cocker '76) (Superstar x Carina x (Clare Grammerstorf x Fruhlingsmorgen). Rose pink. C.D. Yeomans (1 pl. 6 yrs. 8', B.C.): Semi double bloom in clusters. Everybody who comes to the garden admires it. Was also much admired at the show - a fine shrub. Healthy.

BONANZA, S. (Kordes '82). No reports.

CAREFREE BEAUTY, S. (Buck '79). Medium pink (mp). R.J. Kopecky (1 pl. 1 yr. 2½', Neb.): Similar form to old fashioned roses - flat and open, good substance. This rose should not be planted among hybrid teas. It spreads and becomes a wide plant, continually loaded with blooms. A local hospital has a bed of this variety that draws visitors like a magnet. A good rose for the garden but plant it by itself. No disease noted.

DAVID THOMPSON, S. (Svejda '79) ((Schneezwerg x Frau Dagmar Hartopp) x open-pollinated seedling). Cyclamen red, 25 petals. E. Ouellette (2 pls. 2 yrs. 4', Que.): Old rose shaped blooms, slightly wavy petals and bright yellow stamens, loosely formed, good substance, fragrant. Growing in an old compost site at edge of backyard - neighbors love its bright continuous color, rain or shine. Blooms on short stems with dense foliage. Quite thorny - hard to work with but keep it well cut back. Resistant to blackspot and mildew, hardiness is excellent.

FRANK NAYLOR, S. (Harkness '78). No reports.

HENRY HUDSON, S. (Svejda '76). White (w), 25 petals. E. Ouellette (1 pl. 2 yrs. 1½', Que.): Buds very red opening flat to pinkish tinged white to pure white, wavy uneven petals, yellow stamens, good substance. Pro-

fusion of bloom - 3-5 per cluster, repeat bloom is fast opening. On short stems, a good low shrub for a border. No disease, excellent for hardiness.

JENS MUNK, S. (Svejda '74) (Schneezwerg x Frau Dagmar Hartopp). Medium pink, 25 petals. E. Ouellette (2 pls. 2 yrs. 3', Que.): Clusters of large semi-double blooms, many blooms open at once, flattish form, very good substance, plenty of red hips in fall. My favourite shrub - a most feminine rose, ruffled blooms, edges lighten before petals drop, petals don't lie back flat but curve forward with many small shorter petals around stamens - very attractive. Upright bushy growth habit, no disease, hardiness is excellent. (Last year for reporting this rose).

JOHN FRANKLIN, S. (Svejda '80). Medium red (mr), 15 petals. A. Leskiw (1 pl. 3 yrs. 46'', Sask.): 2½'' semi-double bloom, cupped loose form, fair substance, most attractive centers - like it much better than last year. Repeat bloomer. One of my hardier roses, only mounded with 12'' of soil - will not mound at all and see if it survives our winters. Holds up rather well in weeks of 35°C plus. Rich dark green foliage, no disease.

MORDEN CARDINETTE, S. (H.H. Marshall '79). Cardinal red, 24-34 petals. B. Biddulph (3 pls. 4 yrs. 18'', Man.): Cupped form, excellent substance, vibrant color, holds well on bush, easily removed when faded, no mess! Attractive in home or garden, bloom almost continuous. Bushy growth habit but height varies, red canes with medium green foliage, some black-spot, excellent for hardiness. Blooms ball in damp cool weather.

MORDEN CENTENNIAL, S. (H.H. Marshall '80). Pink. B. Biddulph (1 pl. 4 yrs. 3½', Man.): Cupped form, excellent substance, nice bright pink, holds well on bush. Nice bush for garden - haven't grown it indoors. Vigorous growth habit, slight blackspot - used Funginex this year - seems to stop spread of blackspot more quickly. Hardiness is excellent.

ROBUSTA, S. (Kordes '79) (Unnamed seedling x R. Rugosa). Scarlet/yellow eye (mr). 5 petals. M. Humenick (2 pls. 1 yr. 3-5', Cal.): Single bright red blooms at ends of long canes. Decorative form, good substance, good repeat - will be great on fence-line. Foliage had lovely 'fall colors' before storms hit. Very vigorous grower, no disease.

MINIATURES

AÇEY DEUCY, Min. (Saville '82). Medium red, (mr) 28 petals. R.F. Johnson (1 pl. 2 yrs. 24'', Que.): Exhibition form, good substance, 2'' quilled petals, opens a little fast in heat, always in bloom and always looks like a rose - even at maturity. Spreading growth habit, mid green foliage, no disease, hardiness OK with protection.

ANDREA, Min. (Moore '78) (Little Darling x unknown seedling). Rich rose pink/silvery reverse (dp), 20 petals. A. Leskiw (1 pl. 2 yrs. 33', Sask.): 1½'' double bloom, exhibition form, excellent substance, bloomed all summer - one of my favourites. Somewhat upright growth habit, healthy green foliage turns maroon in fall, no disease, needs winter protection. Cut rose back previous fall, dug out and kept dormant indoors till February. Grew

blooms in April, took cuttings, roots very well in vermiculite, very fast grower.

ANGEL DARLING, Min. (Moore '76). No reports.

ANGELGLO, Min. (Williams '83). Deep lavender (m). G. Magee (1 pl. 2 yrs. 8", Ont.): Medium size double bloom, fairly good bud, good form when open. Bushy dwarf grower, smallish foliage, most tender of my miniatures - last cold winter killed 2 bushes outright and severely injured 3rd.

ANGELA RIPPON, Min. (de Ruiter '78). No reports.

ANITA CHARLES, Min. (Moore '81) (Golden Glow x Over the Rainbow). Coral pink/reverse gold (pb), 38-45 petals. M. Humenick (1 pl. 3 yrs. 14", Cal.): Rather large flower, exhibition form, good substance, attractive color combination - good 'show' potential. Rangy grower, dark green foliage, no disease. Mrs. M. Roberts (2 pls. 3 yrs. 14", Ont.): Exhibition form, 1 1/8" fully open, fair substance, tea-like fragrance, fairly continuous bloomer but not heavily at any given time. In singles and small clusters, bloom lasts cut or on bush. Color a bit too intense for me for a garden 'centerpiece' spot but form too good to discard - moved to a background spot. Leathery matt finish foliage, smallish, some mildew, hardiness no problem.

ANNE'S DELIGHT, Min. (Williams '81) (Little Darling x Over the Rainbow). Medium pink (mp). A Leskiw (1 pl. 2 yrs. 12", Sask.): 1 1/2" very double bloom, cupped form, excellent substance, fair bloomer - one of my favourites. Sprawling growth habit, foliage dark red on edges, no disease, needs winter protection. Blooms hold well when 30°C and over.

ANN MOORE, Min. (Moore '81) (Little Darling x Fire Princess). Orange/scarlet (o-r), 28-32 petals. M. Humenick (1 pl. 3 yrs. 18", Cal.): Large bloom, exhibition form, great substance, holds well when cut but opens fast in summer heat. Many sprays plus single blooms, good cropper. Rangy grower, dark green foliage, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 18", Ont.): 3/4" open bloom, high centered form, good substance, blooms singly and in sprays, blooms fairly freely all season, lasts well. This tall girl can easily take on appearance of long stemmed tiny HTs, color is exquisite against a white background (stone work, trellis, fence, statue, etc.). Small leathery abundant foliage, touch of blackspot, very hardy.

AVANDEL, Min. (Moore '77) (Little Darling x New Penny). Yellow/peach pink shading (yb), 20-25 petals. E. Cochran (3 pls. 8 yrs. 18-20", Cal.): Exquisite buds open to exhibition form blooms, become flat when fully open and larger than most minis. Large clusters, fruity fragrance, blooms all year. Upright bushy grower, semi-glossy foliage, no disease. M. Humenick (2 pls. 6 yrs. 18", Cal.): Exceptionally good exhibition form with most attractive bud, great substance, some fragrance. Best in cool weather. Erect grower, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 12", Ont.): Exhibition bud opens to 1" cupped bloom with fancy sepals. Single blooms and sprays, fruity fragrance - a quality rose - I like this one. Not heavily loaded with bloom at any given time but usually a few in different stages, pretty good substance. Fairly disease resistant.

BABY DONNIE, Min. No reports.

BABY ECLIPSE, Min. (Moore '84) (Unnamed seedling x (R. wichuraiana x Florida) x Yellow Jewel). Award of Excellence 1984. Light yellow (ly). G. Magee (1 pl. 1 yr. 20", Ont.): Semi-double bloom with long bud that opens rapidly. Said to be a small shrub for the border about 3' in height and diameter - first year looked like this is right. Similar to Sunspray. Long slender canes, medium size, mid green foliage.

BABY FACE, Min. (Laver '82). No reports.

BABY KATIE, Min. (Saville '78) (Sheri Anne x Watercolor). Cream/pink edges (pb), 25-30 petals. E. Cochran (2 pls. 3 yrs. 15", Cal.): High centered buds, perfect exhibition form, super substance, borne in many sprays and loads of singles - this Mini is the best, and a winner. Floriferous, fragrant, very vigorous - super in tree form too. Some mildew. Mrs. M. Roberts (5 pls. 2 yrs. 12-15", Ont.): Very good exhibition form, 1 1/4" fully open, very good substance, in sprays and one per stem, always in bloom - almost no rest period. Color and shape are features that most attracted me to it. Outside grown - color is deeper in full sun, flushed with salmon; outside in partial shade or inside yellow is more predominant - a 'chameleon'. For exhibiting or garden display - front row center. Compact grower, medium green serrated foliage, mildews. Good winterer.

BABY RUMBA, Min. No reports.

BIG JOHN, Min. (Williams '79) (Starburst x Over the Rainbow). Medium red/yellow base (mr), 35-50 petals. M. Humenick (1 pl. 2 yrs. 22", Cal.): Exhibition form, good substance but flower too large - can hold form as cut bloom but size makes it difficult to exhibit. Rangy tall grower, dark green foliage, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 14", Ont.): HT form, 1 1/2" fully open bloom, excellent substance, quantity sparse and repeat only moderate but blooms last 2-3 weeks with no fading or wilting. Bloom like velvet, a gem. Bushy compact balanced plant, glossy bronzy foliage, disease-resistant, very hardy.

BIRTHDAY PARTY, Min. (Strawn '79) (Attraktion x Sheri Ann). Deep rose/lighter reverse (mp), 25-30 petals. G. Magee (2 pls. 1 & 2 yrs. 36", Ont.): Exhibition bud, fairly double open bloom, very attractive variety. Moderate amount of bloom, no big heads. Made huge plant - very dense and 3' high, dark green medium size foliage, mildews, seems hardy.

BIT O' MAGIC, Min. (Williams '79). No reports.

BLACK JACK, Min. (Williams '83). (Tom Brown x Over the Rainbow). Dark red/black shading (dr). M. Humenick (1 pl. 1 yr. 14", Cal.): Very beautiful exhibition bloom, great substance, non-fading very intense color - its strongest attribute, with form a close second. Erect grower, dark green foliage, no disease.

BLUE BLOOM, Min. Laver '82) (Dwarf King x Hokey Pokey). Crimson red (mr). 50-60 petals. Canadian hybridized. E. Caldwell (1 pl. 2 yrs. 10", Ont.): Very double bloom, flat form, good substance, many blooms all summer. Performed excellently this year after I moved it. Attractive red edged foliage, some blackspot.

BOJANGLES, Min. (Warriner '81) (Spanish Sun x Calgold). Deep yellow (dy). E. Cochran (2 pls. 3 yrs. 12-14", Cal.): Tapered buds, some nice exhibition blooms if cut tight but open a little fast, produces well if planted in sun. One of the darkest yellow minis. Bushy compact grower, semi-glossy medium green foliage, disease-resistant.

BONNY, Min. (Kordes '74) (Zorina x Seedling). Medium pink (mp), 25-30 petals. Mrs. M. Roberts (4 pls. 3 yrs. 6", Ont.): Dark cerise with white silvery base, HT form, excellent substance, $\frac{3}{4}$ " bloom, blooms heavily with average rest, 1 per stem but not long enough for exhibiting. Fragrant. I love this one indoors where it beautifies my dining room table, or outside - either environment color and form are always excellent. Bronzy foliage, mildews, very hardy. (Last year for reporting this rose).

BORN FREE, Min. (Moore '78). No reports.

BRASS RING (PEEK A BOO in England and Europe), Min. (Dickson '82) (Memento x Nozomi). Apricot fading to rose pink (ob), 21 petals. E. Cochran (2 pls. 3 yrs. 18-20", Cal.): Slender buds, exhibition form if cut tight, great garden color, borne 10-15 in large clusters and never out of bloom - best floriferous mini. Upright grower, small medium green foliage, no disease so far. M. Humenick (2 pls. 3 yrs. 16", Cal.): Soft color, exhibition form, great substance, very small blossom with complementary foliage, some sprays and many one per stem, excellent productivity. Dense compact grower, bronzy green foliage, no disease.

BUTTONS 'N BOWS, Min. (Poulsen '80). Pink blend (pb). M. Humenick (1 pl. 2 yrs. 14", Cal.): Small blossom, exhibition form, good substance, some fragrance, always in bloom. Blossom and foliage compliment one another. Dense compact grower, no disease.

CALICO DOLL, Min. (Saville '79). No reports.

CALGOLD, Min. (Moore '77). No reports.

CARELESS MOMENT, Min. (Williams '77). White/pink edges (pb), 40-50 petals. C.D. Yeomans (1 pl. 1 yr. 18", B.C.): Beautiful HT shaped flowers, but not enough of them. Healthy.

CARIBE, Min. (Warriner '82) (Bridal Pink x Fire Princess). Apricot blend (ab), 35 petals. E. Cochran (2 pls. 3 yrs. 12-14", Cal.): Perfect buds open slowly, blooms have high centered form but open too fast, good clusters, repeats well, faint spicy fragrance. Improved after I moved it to a warmer area. Compact bushy grower, dark green semi-glossy foliage, disease resistant. M. Humenick (1 pl. 3 yrs. 12", Cal.): Decorative form, average substance, some sprays, most bloom one per stem, opens fast, good color. Dense growth habit, OK foliage, no disease.

CARNIVAL GLASS, Min. (Williams '79). No reports.

CARNIVAL PARADE, Min. (Williams '78) (Starburst x Over the Rainbow). Golden yellow to red (yb), 45 petals. M. Humenick (1 pl. 4 yrs. 18", Cal.): Blossom size a trifle large for its class. Decorative form, good substance, initial bloom is heavy but when the music stops, so does the 'parade'. Upright grower, medium green foliage, no disease.

CAROL JEAN, Min. (Moore '76). No reports.

CENTER GOLD, Min. (Saville '81) (Rise 'n Shine x Kiskadee). Deep yellow/gold center (dy), 35 petals. E. Cochran (3 pls. 3 yrs. 14" Cal.): Long tapered buds, blooms open slowly to exhibition form. One of the better minis in this color class. Excellent substance, many blooms once it got established, long lasting as cut blooms. Upright branching growth habit, dark leathery foliage, no disease. M. Humenick (3 pls. 4 yrs. 14", Cal.): Perfect exhibition form, mostly one bloom per stem, great substance - does well on show table. Hard to account for some almost pure white blooms on same bush - others have noted this too. Short dense grower, medium green foliage, no disease. G. Magee (3 pls. 3 & 2 yrs. 20", Ont.): Excellent bud, from deep yellow to white - white are usually best but yellow bud is good too. A worthwhile variety - not as good as Rise 'n Shine. Upright bushy grower, medium size foliage, a bit shiny.

CHARM GLO, Min. (Williams '80). No reports.

CHATTEM CENTENNIAL, Min. (Jolly '79) (Orange Sensation x Zinger). Orange-red (o-r), 35-38 petals. M. Humenick (1 pl. 4 yrs. 14", Cal.): Heavy bud, blossom on large side, can have excellent form, great substance, rich color - very stable. Well liked in this area. Erect grower, dark green foliage, no disease. A. Leskiw (1 pl. 2 yrs. 6", Sask.): Double bloom, ovoid form, opens well, holds up under extremely hot dry weather, very showy - recommend this one. Petals are round and look attractive when fully open. Sprawling growth habit, small foliage, dark maroon on edges, no disease, needs winter protection.

CHEERS, Min. (Saville '83) (Poker Chip x Zinger). Brilliant orange-cream reverse (ob). M. Humenick (2 pls. 1 yr. 10" Cal.): Decorative form, opens fast, showy with good color, quick repeat, great substance. Short growth habit, attractive foliage, no disease.

CHOO-CHOO CENTENNIAL, Min. (Jolly '80). No reports.

CHRISTINE WEINERT, Min. (Moore '76). No reports.

CLARET, Micro Min. (Saville '77). No reports.

CORNSILK, Min. (Saville '82). Bright yellow, (my). 50 petals. E. Cochran (1 pl. 1 yr. 14", Cal.): Many small buds open to lovely exhibition form, fair substance. Borne mostly one to a stem, last well, perform well in warm weather but buds not in wet foggy nights. Upright spreading form, small medium green foliage, no disease. E. Freeman (1 pl. 2 yrs. 6", Ont.): Bloom opens fast, fair substance, color bleaches out and is weather spotted. Haven't had 2 good blooms in 3 years - out it goes. Hardiness is good. R.F. Johnson (1 pl. 2 yrs. 18", Que.): 1½" bloom, exhibition form in early stages, good substance, not as many blooms as expected. Bushy grower, plentiful foliage, no disease, needs winter protection. G. Magee (2 pls. 1 & 2 yrs. 20", Ont.): Very double bloom from a fair HT bud, didn't like the color last year but like it better this year. Bushy grower, foliage in proportion, seems hardy. Mrs. M. Roberts (2 pls. 2 yrs. 12-14", Ont.): 1" double bloom, HT form, very good substance, slow to establish but consistent bloomer - have great hopes for this one. Quality of bloom and foliage made it an eye catcher

indoors - will try to find space for it outdoors. Bushy grower, disease-resistant.

CRAZY QUILT, Min. (Moore '80). No reports.

CRICKET, Min. (Christensen '78) (Anytime x (Zorina x Golden Wave)). Light orange to yellow (ob). 25 petals. E. Cochran (2 pls. 5 yrs. 20-22", Cal.): Tapered buds, semi exhibition form, excellent substance but open too fast, brilliant color, floriferous. Very showy grown as trees. Upright spreading growth habit, medium green glossy foliage, disease-resistant.

CUDDLES, Min. (Schwartz '78) (Zorina x unnamed seedling). Coral pink (dp), 55-60 petals. E. Cochran (2 pls. 5 yrs. 18-20", Cal.): Large sprays of lovely form buds, exhibition form blooms, excellent heavy substance, produces all season, wins top awards. Compact bushy grower, disease-resistant. E. Freeman (3 pls. 4 yrs. 6", Ont.): Exhibition form, excellent substance, loads of bloom all season, a prize winner. First to blackspot in the garden - must keep it sprayed. Hardiness is good. M. Humenick (2 pls. 1 yr. 15", Cal.): Exhibition form, great substance, happy in hot weather, borne one per stem and in clusters - one of the best minis in its color class. Short compact grower, medium green foliage, no disease. B. Porter (1 pl. 1 yr. 10", Sask.): Exhibition form, excellent substance, blooms singly and in clusters, long lasting dainty flowers that hold well - I like this one. Bushy plant, no disease. Mrs. M. Roberts (4 pls. 4 yrs. 18", Ont.): Size of bloom varies from $\frac{3}{4}$ to $1\frac{1}{2}$ ", double, 'Peace' like, 60 blooms on plant at a time, fast repeat. Exhibition form, excellent substance, lovely sepals. Surprised it isn't used more for arrangements and exhibition. Color consistent even in hottest weather, very disease resistant, wintered well.

CUPCAKE, Min. (Spiers '81). Medium pink/paler reverse (mp). 40-50 petals. E. Cochran (2 pls. 3 yrs. 12-14", Cal.): Exhibition form with spiral centers, very good substance, one of the better formed minis - a classic in all respects. Produces in great quantities. Upright bushy grower, medium green matt foliage, disease resistant. C. Decker (1 pl. 2 yrs. 10", Alaska): High centered HT like form, excellent substance, 1" diameter. Most of my miniatures had a hard winter so were slow to start but this is still an excellent mini - only eclipsed by Spice Drop. Spreading growth habit, no disease, medium for hardiness. E. Freeman (1 pl. 2 yrs. 6", Ont): Exhibition form, excellent substance, loads of bloom all season - my favourite new mini, wouldn't be without it. Nice bushy plant, no disease, hardiness is very good. M. Humenick (2 pls. 4 yrs. 12", Cal.): Very formal exhibition form, great substance, dependable, rates very high at our rose shows - color and form a great asset. Dense grower, no disease. G. Magee (4 pls. 2 & 3 yr. 28", Ont.): Exhibition bud and good open bloom, good substance, blooms freely, one of the finest miniatures. Bushy grower, attractive smallish foliage, no disease, hardy. B. Porter (1 pl. 1 yr. 9", Sask.): Double flowers, mostly borne singly, very attractive color. Hope it blooms heavier in future years. Low spreading growth habit, dark green foliage, no disease. Mrs. M. Roberts (4 pls. 3 yrs. 16", Ont.): Exhibition form blooms, good substance, continuous bloom all season, heavily laden at times, in sprays. Slow to establish but grows well inside or out. Very long lasting - two 10-day old blooms took 1st in their class. Doesn't like rain - will waterspot, ball and

wither. Compact bushy grower, glossy foliage, fairly disease resistant, good winterer.

CUPIDS BEAUTY, Min. (Williams '78). No reports.

DEEP VELVET, Min. (Betty Jolly '81). No reports.

DON MARSHALL, Min. (Moore '82) (Baccara x Little Chief). Rich red/dark red reverse (dr), 35-40 petals. E. Cochran (2 pls. 2 yrs. 12-14", Cal.): Exhibition high centered form, fair substance, burns in hot sun - must be protected but worth it. Upright bushy growth habit, dark green heavy foliage, no disease. M. Humenick (1 pl. 2 yrs. 12", Cal.): Rich dark red color, exhibition form, excellent substance, could be a little more productive. Can have a stiff errant cane. Rangy grower, dark green foliage, no disease. G. Magee (1 pl. 2 yrs. 3', Ont.): Double, medium size bloom, exhibition form bud, good open bloom, borne in large sprays. Tall rangy grower, faded blooms not attractive - OK if you can use the height and growth habit.

DOUBLE JOY, Min. (Moore '79) (Little Darling x New Penny). Pink (mp), 35 petals. C.D. Yeomans (B.C.): HT shape, lovely flowers, should be better known although a shy bloomer.

DREAMGLO, Min. (Williams '78) (Little Darling x Little Chief). Red and white/white reverse (rb), 50-60 petals. B. Biddulph (1 pl. 2 yrs. 10", Man.): Very double bloom with high center, not exhibition but good for garden. Repeats well but fades in strong sun. A bit too tall for a mini but attractive. Upright grower, dark stems and foliage, no disease, hardiness is good. E. Cochran (2 pls. 4 yrs. 26", Cal.): Perfect bud, exhibition bloom, excellent substance, color intensifies and doesn't blue. Lasts well - great for arrangements. My two 18" trees bloom right through the season. Upright spreading growth habit, small medium green matt foliage, no disease. M. Humenick (2 pls. 5 yrs. 20", Cal.): Exhibition form, super substance, good keeper - cut or on bush, lovely color combination. Winner at shows in the 'spray' class. Erect grower, no disease. R.F. Johnson (1 pl. 2 yrs. 26", Que.): 1 3/4" bloom, quilled petals, exhibition form, excellent substance, plentiful. Bushy growth habit, well foliated, no disease, winters well with protection.

DRESDEN DOLL, Min. (Moore '75). No reports.

DWARF QUEEN, Min. (Kordes '82). No reports.

EARTHQUAKE, Min. (Moore '84). (Golden Angel x unnamed seedling). Pale yellow splashed red (rb). G. Magee (1 pl. 1 yr. 14", Ont.): Quite double bloom, not exhibition but could be fine in garden - a promising color novelty. Small mid green foliage, no disease.

FAIRLANE, Min. (Schwartz '80). Pink/yellow blend (yb), 36 petals. E. Cochran (2 pls. 4 yrs. 12-15", Cal.): Perfect exhibition form, good substance, sometimes a little large, many blooms but no clusters. Upright compact growth habit, small leathery medium green foliage, disease-resistant. M. Humenick (1 pl. 4 yrs. 12", Cal.): Exhibition form, average substance, opens too rapidly and flower too large. Blooms mostly one to a stem. Upright grower, medium green foliage, no disease.

FASHION FLAME, Min. (Moore '77). No reports.

FELICITY II, Min. (Poulsen '81). No reports.

FLYING COLORS, Min. (Saville '83) ((Yellow Jewel x Tamango) x Sheri Anne). Red blend (rb). M. Humenick (1 pl. 1 yr. 12", Cal.): Decorative form, opens rapidly but holds well, good color contrast. A trifle shy about blooming. Short grower, medium green foliage, no disease.

FOXY LADY, Min. (Christensen '80). (Gingersnap x Magic Carrousel). Coral pink to white (pb), 20-28 petals. E. Cochran (3 trees, 5 yrs. 24-28", Cal.): HT form buds, good exhibition bloom but opens somewhat flat. Lasts for days, very colorful, great for arrangements and cut blooms. Lightly fragrant. Grown as 18" trees, always in bloom. Dark glossy green foliage, disease-resistant. M. Humenick (1 pl. 4 yrs. 14", Cal.): Oversize bloom, exhibition form but best as a bud, good substance, good color, non-fading, borne mostly one per stem. Erect grower, no disease.

FUNNY GIRL, Min. (Warriner '82) (Bridal Pink x Fire Princess. Light pink (lp). (1 pl.) 35 petals. E. Cochran (2 pls. 3 yrs. 18-20", Cal.): Lovely buds, high centered exhibition form bloom, heavy substance, fragrant, lasting as cutting rose and on plants, drops petals cleanly. Mostly one per stem. Upright branching growth habit, leathery dark green foliage, disease-resistant.

GALAXY, Min. (Moore '80). No reports.

GINNY, Min. (Bischoff '81). Red blend (rb). E. Cochran (2 pls. 2 yrs. 12-14", Cal.): White buds tipped in red, blooms have red suffused petals. Long pointed buds, high centered exhibition form bloom, last well, borne mostly one to a stem, intermittent bloom cycle. Another good miniature. Upright grower, dark green semi-glossy foliage, no disease.

GLORIGLO, Min. (Williams '76). (Seedling x Over the Rainbow). Orange/creamy white reverse (ob), 40-50 petals. M. Humenick (1 pl. 5 yrs. 16", Cal.): Decorative form, great substance, good in the border - great color and heavy producer. Can have show form at right moment, rather oversized, some fragrance. Erect grower, medium green foliage, no disease.

GREAT DAY, Min. (Williams '82) (Little Darling x Gold Coin) x (Little Darling x Gold Coin). Deep yellow (dy). 35 petals. E. Cochran (2 pls. 2 yrs. 12-14", Cal.): Long pointed buds, exhibition form blooms but too large, good substance, lovely color, but there are many better yellow minis. Lasts well, petals drop cleanly. spreading growth habit, medium green foliage, some mildew.

HAWAIIAN SUNRISE, Min. (Williams '81) (Unnamed seedling x Over the Rainbow). Red & yellow bicolor (rb), 40 petals. E. Cochran (2 pls. 1 yr. 8", Cal.): Pointed reddish buds, blooms chrome yellow tinger o-r, open blooms finish pale orange, cactus-like form - very unusual but different. Blooms rather large for shape of plant. Compact dense plant, bronze glossy green foliage, slight mildew in fall.

HEARTLAND, Min. (Saville '82). No reports.

HEIDI, Min. (Christensen '78). (Fairy Moss x Iceberg). Clear medium pink (mp), 35 petals. B. Porter (1 pl. 1 yr. 10", Sask.): Double bloom, mossy calyx, borne singly and in clusters. Very good first-year performance - good garden variety. Bloomed later and resisted frost better than all other minis. Spreading growth habit, dark green foliage, very thorny, no disease.

HELEN BOEHM, Min. (Christensen '83). Light pink (lp), G. Magee (1 pl. 1 yr. 15", Ont.): Nice bud, exhibition quality, semi-double open bloom, very attractive variety, free blooming. Fairly small foliage.

HOKEY POKEY, Min. (Saville '80) (Rise 'n Shine x Sheri-Anne). Light orange/yellow shading (ob), 20-25 petals. Mrs. M. Roberts (1 pl. 3 yrs. 10-12", Ont.): Long pointed buds open to flat 1" blooms, fair substance, fancy sepals, borne singly, relatively profuse and continuous bloomer, spicy fragrance. Does very well inside, needs partial shade outside. Good garden display, has design potential but not good for exhibiting. Compact grower, semi-glossy foliage, finely serrated. No disease problems and hardiness is good.

HOLY TOLEDO, Min. (Christensen '78) (Gingersnap x Magic Carrousel). Apricot orange/reverse yellow orange (ab), 25-30 petals. E. Cochran (2 trees, 6 yrs. 26", Cal.): Exhibition HT form buds and blooms, retains beautiful color, fragrant, very floriferous - a real charmer. Upright bushy grower, dark semi-glossy foliage, disease resistant. E. Freeman (2 pls. 2 yrs. 5", Ont.): Exhibition form, excellent substance, outstanding color - a must have. Takes a rest between flushes of bloom. Neat compact grower, hardiness is good. M. Humenick (3 pls. 6 yrs. 18" Cal.): Delightful color, dependable exhibition form, excellent substance, one per stem as well as sprays - a winner of blue ribbons at shows. Visitors gravitate to it in the garden. Erect grower, dark green foliage, no disease. G. Magee (4 pls. 2-3 yrs. 32", Ont.): Exhibition bud and open bloom, bud fades but open bloom attractive and beautiful color - one of my favourites. Whole bush looks healthy and vigorous, shiny attractive foliage, seems hardy.

HOMBRE, Min. (Jolly '83). Apricot blend (ab). G. Magee (3 pls. 1 & 2 yrs. 16", Ont.): For me the color is pale pink. Quite double bloom, HT bud, medium size when open. Not good exhibition bloom but a good garden variety and a fairly free bloomer. Bushy growth habit, smallish dark green foliage. Award of Excellence 1983. B. Porter (1 pl. 1 yr. 9", Sask.): Exhibition form, good substance, double blooms borne singly, very attractive flowers but not too abundant. Low compact grower, small leaves, slight mildew in late fall.

HONEST ABE, Min. (Christensen '78). No reports.

HONEY MOSS, Min. (Sudol '77). No reports.

HOPSCOTCH, Min. (Christensen '79). No reports.

HOT LINE, Min. (Christensen '83). Orange red (o-r), 25 petals. E. Cochran (3 pls. 4 yrs. 14", Cal.): Tapered buds open to bright rounded petalled blooms with large yellow eye. Great substance, lasts well, a different shade than most in this color class. Bushy upright growth habit, heavy semi-glossy foliage, no disease. M. Humenick (1 pl. 1 yr. 16", Cal.): Decorative

form, average substance, thinly petalled, opens rapidly to show heavy stamens. Holds well fully open and does not fade. Erect grower, thorny, dark green foliage, no disease.

HULA GIRL, Min. (Williams '75). No reports.

HUMDINGER, Min. (Schwartz '76). No reports.

ICE PRINCESS, Min. (Laver '83). No reports.

JANICE TELLIAN, Min. (Moore '79). No reports.

JEAN KENNEALLY, Min. (Dee Bennett '84) (Futura x Party Girl). Apricot blend (ab). M. Humenick (1 pl. 1 yr. 12", Cal.): Very formal exhibition form, great substance, holds shape, attractive color - great at our rose shows. Some fragrance. Plant has good shape, quite dense. Dark green foliage, no disease.

JEANNE LAJOIE, Cl. Min. (Sima '75) (Casa Blanca x Independence). Medium pink/darker reverse (mp), 40 petals. R.J. Kopecky (1 pl. 2 yrs. 3', Neb.): High centered exhibition bloom, very good substance. I have this one planted with Red Cascade and they thrive on neglect - no spraying, no covering and they bloom like mad all summer. A true climber, no disease ever, hardiness is excellent.

JELLY BEAN, Min. (Saville '82). No reports.

JEWELL BOX, Min. (Moore '83). No reports.

JOAN AUSTIN, Min. (Moore '81). Light pink with white stripes (lp). (1 pl). 35-40 petals. C.D. Yeomans (1 pl. 1 yr. 9", B.C.): Flattish flowers, has performed well, healthy - I like this one.

JULIE ANN, Min. (Saville '84) (Zorina x Poker Chip). Award of Excellence '84. Orange red (o-r). E. Cochran (2 pls. 1 yr. 13", Cal.): High centered buds, perfect exhibition bloom with petals that quill to a perfect star - sure to win its share of blue ribbons. Spring blooms were the best - unusual hot weather caused many to suffer but this one came back. Upright bushy grower, small dark foliage, no disease. G. Magee (1 pl. 1 yr. 20", Ont.): Nice HT bud, semi-double open bloom, free blooming, opened rapidly this first summer and lacked petals - will take longer to see if this is one of the best orange reds. Upright bushy grower, fairly small dark green foliage, some mildew.

KAIKOURA, Min. (McGredy '78) (Anytime x Matangi). Red blend (rb), 27 petals. A Leskiw (1 pl. 3 yrs. 16", Sask.): Double bloom, HT form, fair substance, sparse bloomer. Doesn't perform as well as other minis - will try and encourage it to do better. Upright growth habit, dark glossy foliage, no disease, hardiness excellent with winter protection.

KO'S YELLOW, Min. (McGredy '78) (New Penny x Banbridge) x (Border Flame x Manx Queen). Yellow/cerise petal edges (yb), 39 petals. M.A. Cadsby (1 pl. 1 yr., Ont.): Lovely yellow blend, exhibition form, good substance - a real winner - highly recommended. Excellent growth habit, ample foliage, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 12", Ont.): 1¼" exhibition type bloom when fully open, good substance, borne singly until established,

then sprays and singles. Moderate continuous bloomer. Certainly 'shows off' in the garden - I hope to 'show' it - could become a must for arrangers. Bushy spreading plant with strong stems, glossy dark foliage, disease-resistant, hardiness is good so far. C.D. Yeomans (1 pl. 1 yr. 15", B.C.): Informal flower, quickly fades to cream, mostly one to a stem - not for exhibition. Vigorous grower, healthy.

LADY EVE, Min. (Rovinski & Meredith '78). No reports.

LAVENDER JEWEL, Min. (Moore '78) (Little Chief x Angel Face). Clear lavender mauve (m), 35-40 petals. B. Biddulph (1 pl. 2 yrs. 5", Man.): Very double bloom, high centered, opens wide, good substance, mauve color holds well in sun, some fragrance. Another little darling but not for exhibition. Spreading bushy growth habit, dark stems, no disease.

LEMON DELIGHT, Min. (Moore '78) (Fairy Moss x Gold Moss). Primrose yellow (my), 10 petals. A. Leskiw (1 pl. 5 yrs. 14", Sask): Semi-double bloom, loose form, excellent substance, quality bloom. Preserved a spray in silica gel beautifully - sand clung to moss stems and gave added appeal - looked terrific with grey toned weathered wood. Wouldn't be without this one - deserves a class of its own. Blooms all summer. Somewhat spreading growth habit, light green foliage, hardiness excellent with winter protection. B. Porter (1 pl. 1 yr. 10", Sask.): Single form, very mossy, fragrant with a hint of lemon. A favourite and a good garden variety. Open spreading growth habit, mid green foliage, very thorny stems, no disease.

LIBBY, Min. (Peg 'n Andy '78). White with bright red petal edge (rb). M. Humenick (1 pl. 4 yrs. 18", Cal.): Exhibition form, good substance, great color contrast, opens a little too fast, borne in clusters as well as one per stem. Erect grower, dark green foliage, no disease.

LITTLE ARTIST, Min. (McGredy '83). Red blend (rb), 10-12 petals. B. Porter (2 pls. 2 yrs., Sask.): Color is red and white - base of petals is white and white reverse. Single bloom, good substance, borne in clusters and fairly freely. Very showy - good garden variety. One plant carried over winter indoors under lights - bloomed well in early winter, rested, no bloom in spring or early summer but bloomed heavily in mid to late summer and fall. Bushy vigorous grower, no disease, wintered well under dry leaves.

LITTLE DICKENS, Min. (Schwartz '79). No reports.

LITTLE ESKIMO, Min. (Moore '81). No reports.

LITTLE JACKIE, Min. (Saville '82) (Prominent x Sheri Anne) x Glenfiddich). Salmon/red reverse (o-r), 24 petals. R.F. Johnson (1 pl. 2 yrs. 45", Que.): 2" bloom, exhibition form when $\frac{1}{2}$ to $\frac{3}{4}$ open, fades at maturity, fair substance. Bush a massive dense column 24" diameter and 45" high, lots of bloom all the way up - some mini! Too tall, no disease, hardiness is good. R.J. Kopecky (1 pl. 1 yr. 12", Neb.): High centered exhibition bloom, very good substance - another good one that did well for a first year plant - growth was outstanding and bloom production above normal. One of the better new ones. Bushy growth habit, no disease noted, hardiness excellent. G. Magee (1 pl. 2 yrs. 20", Ont.): Beautiful bud but fleeting, not many petals. My one plant bloomed well in June then died, apparently from

winter injury. Had a few more petals in spring than in 1983. Bushy grower, not hardy. Award of Excellence '84.

LITTLE LINDA, Micro Mini (Schwartz '76). No reports.

LITTLE RASCAL, Min. (Jolly '81). Medium red (mr). G. Magee (1 pl. 1 yr. 28", Ont.): Very double quilled open bloom, bud of fair exhibition quality. Made an attractive bush first year with quite a bit of bloom. In late September had a lot of feathery double open blooms out on a tall plant. Matt green foliage, medium size.

LITTLE RED DEVIL, Min. (Christensen '80) (Gingersnap x Magic Carrousel). Medium red (mr). 35-50 petals. Mrs. M. Roberts (4 pls. 2 yrs. 18", Ont.): 1" bloom, HT form, good substance, fancy sepals - very attractive. One to a stem and up to 8 per spray, heavy bloomer at first, then average. Showy with its bronzy stems and solid blooms. Bushy upright growth habit, small semi-glossy foliage with irregular serrations, disease resistant, hardiness no problem.

LITTLE SIR ECHO, Min. (Schwartz '77). No reports.

LITTLEST ANGEL, Min. (Schwartz '76). No reports.

LYNN ANN, Min. (Saville '80). No reports.

LOVEGLO, Min. (Williams '83) (Little Darling x Over the Rainbow. Light pink (lp). G. Magee (1 pl. 1 yr. 14", Ont.): Fine exhibition bud and very double bloom, good substance - appears to be one of the best 1984 introductions from a small late arriving plant. Fairly small foliage.

MAORI DOLL, Min. (Bell Roses '77). No reports.

MARK ONE, Min. (Saville '82). No reports.

MOIROV, Min. (Paolino '75). Currant red, 20 petals. C.D. Yeomans (1 pl. 3 yrs. 1', B.C.): An attractive, healthy mini, good sprays.

MIAMI HOLIDAY, Min. (Williams '76). No reports.

MILLIE WALTERS, Min. (Moore '83). (Little Darling x Galaxy). Coral/red. M. Humenick (1 pl. 1 yr. 12", Cal.): Exhibition form, great substance, some fragrance, striking color combination, good keeping qualities. Erect grower, healthy and robust, medium green foliage.

MINNIE PEARL, Min. (Saville '82). Light pink (lp), 29 petals. M. Humenick (2 pls. 1 yr. 14", Cal.): Long stems with delicately colored blooms, mostly one bloom per stem, some fading. Exhibition form, looks soft but has superior substance. Sprawling growth habit, medium green foliage, no disease. R.F. Johnson (1 pl. 2 yrs. 26", Que.): 1¾" bloom, exhibition form at early stages, mature bloom has quilled outer petals. Very good substance, always in bloom. Bushy grower, dark green plentiful foliage, no disease - hardiness OK with protection. A. Leskiw (1 pl. 2 yrs. 20", Sask.): Double 1½" bloom, exhibition form, excellent substance, outer petals roll back, fruity fragrance, blooms all summer. Performance is excellent under extreme hot dry weather conditions, highly recommended all the way - one of the best of the HT minis. Upright grower, very attractive

foliage - turns maroon in fall. No disease, hardiness excellent with winter protection. G. Magee (3 pls. 1 & 2 yrs. 32", Ont.): Exhibition bud, very double bloom with good form and substance, very attractive and one of the best 1983 introductions I grow. Only defect - old blooms have a hard unattractive center. Tall fairly bushy grower, medium size dark green foliage, seems hardy.

MISTEE, Min. (Moore '79). No reports.

MISTY DAWN, Min. (Schwartz '79). No reports.

MOOD MUSIC, Mini Moss (Moore '77) (Fairy Moss x Goldmoss). Orange apricot blended pink (ob), 40-50 petals. Mrs. M. Roberts (2 pls. 4 yrs. 15", Ont.): Exquisite moss! 1½" open bloom, old-fashioned form, excellent substance, borne singly and in clusters, constantly and profusely, long lasting, fragrant. My favourite 'moss' mini - a real pet with show potential. Vigorous upright to spreading growth habit, abundant semi-glossy foliage, basically care-free, very hardy.

NIC NOC, Min. (Poulsen '79). No reports.

OLYMPIC GOLD, Min. (Jolly '83) (Rise 'n Shine x Bonny). Medium yellow (my). G. Magee (1 pl. 1 yr. 24" Ont.): Fine HT bud of exhibition form, very double quite large bloom. Quite attractive but color soon fades and bloom is too large for best miniature standards. Upright grower, large matt green foliage, some mildew.

ONTARIO CELEBRATION, Min. (Laver '83). Orange red (o-r). E. Freeman (1 pl. 1 yr. 4", Ont.): Double, high centered bloom, good substance. Not much bloom - will wait until next year to assess. Not much growth this season.

ORANGE CASCADE, Cl. Min. (Moore '79) (Unnamed yellow seedling x Magic Wand). Yellow flushed orange (ob), 20 petals. A Leskiw (1 pl. 3 yrs. 6", Sask.): Very double bloom, cupped form, poor substance. Even though this rose winters over, I have seen much better - don't like the way it fades and shatters quickly. Bushy grower, iron deficiency in foliage, no disease, hardiness is good.

ORANGE HONEY, Min. (Moore '79) (Rumba x Over the Rainbow). Orange yellow (ob), 20-25 petals. C.D. Yeomans (B.C.): Very attractive flower, HT shape, showy, healthy.

ORANGE PIXIE, Micro Min. (Moore '78). No reports.

PACE SETTER, Min. (Schwartz '79) (Ma Perkins x Magic Carrousel). White (w) (blush in bud), 43-48 petals. M. Humenick (3 pls. 3 yrs. 24", Cal.): Pure clean white, trifle oversized, reliable exhibition form, great substance, in clusters as well as one bloom per stem. Erect quite vigorous plant, dark green foliage, no disease. R.J. Kopecky (2 pls. 3 yrs. 18", Neb.): High centered exhibition form, very good substance - perhaps the best all around white miniature I have - can be used in many different ways. English box class, single specimen, cut flower and arrangements. Upright tall growth habit, no disease so far, excellent for hardiness - should not have survived last winter but it did. Mrs. M. Roberts (4 pls. 2 yrs. 20-30" Ont.): HT form

bloom, 1½" fully open, one per stem, thick velvety petals, enough blooms and average repeat, some fragrance. Flawless bloom but will waterspot. Tall upright grower but also bushy - needs large background spot. Quite dark green foliage, will mildew and blackspot, very hardy.

PARTY GIRL, Min. (Saville '79) (Rise 'n Shine x Sheri-Anne). Apricot yellow overlaid salmon (yb), 25 petals. E. Cochran (2 trees, 5 yrs. 28", Cal.): High centered exhibition form, super substance, color like a soft sunset - so perfect. Best on miniature trees 18", many sprays and one to a stem, soft spicy fragrance. A winner. Upright spreading growth habit, dark glossy green foliage, no disease. M. Humenick (3 pls. 4 yrs. 12", Cal.): Dainty bloom, exhibition form, great substance, excellent color, holds well - a prize winner and a favourite at the show. Many one per stem, repeat bloom excellent. Short growth habit, small dark green foliage, no disease, R.J. Kopecky (2 pls. 2-3 yrs. 15", Neb.): Outstanding exhibition form, excellent substance. With all the minis coming along, it takes an exceptional rose to stand out - this is my choice. Consistent winner on show table, especially in the box class. Blooms like mad all season. Upright bushy grower, no disease so far, hardy-surviving one of the hardest winters. A. Leskiw (1 pl. 1 yr. Sask.): Double, high centered exhibition form, excellent substance. Grown in hanging basket with south exposure - beautiful until extreme hot weather then went downhill fast - heat burn, spider mites, mildew but beautiful enough to try and hold over. Mrs. M. Roberts (7 pls. 4 yrs. 14-16", Ont.): Long pointed bud, high centered HT form bloom, very good substance, 1¼" open full. One per stems and sprays, plentiful blooms and moderate repeat. Good standard for miniatures - shading of colors, texture and basic form all lovely. Upright grower, medium green foliage, can mildew and blackspot, allergic to some sprays, winters well.

PEACH BRANDY, Min. (Schwartz '78). Orange yellow to peach (ab), 23 petals. C.D. Yeomans (1 pl. 2 yrs. 18", B.C.): Blooms flat but many of them, very attractive, healthy - a good mini.

PEACHES 'N CREAM, Min. (Woolcock '76) (Little Darling x Magic Wand). Creamy white/peach edge (pb), 50-55 petals. E. Cochran (3 pls. 5 yrs. 30", Cal.): Large thick buds open slowly, large exhibition form blooms, excellent substance, super floriferous and vigorous, heavy clustering, on 18" trees heavy blooms make canes hang down. Must disbud for exhibiting. Upright spreading growth habit, dark bronzy glossy foliage, no disease. M. Humenick (2 pls. 5 yrs. 18" Cal.): Exhibition form, superb substance, appealing color, in clusters and one per stem, slow to open. Repeats well. Erect grower, dark green foliage, no disease. R.J. Kopecky (2 pls. 1 & 2 yrs. 24", Neb): High centered bloom, exhibition at times, very good substance. Upright grower, no disease, excellent for hardiness - came through extremely cold winter, ice and snow covered from mid-November to mid-April - has proven itself to me.

PEACHY KEEN, Min. (Bennett '79). No reports.

PEGGY'S DELIGHT, Min. (Williams '82). Red/white reverse (dp). G. Magee (1 pl. 2 yrs. 15", Ont.): Very double bloom, fairly good buds and blooms on short stem, mostly singles. A quite short bushy variety of some merit although not one of the best in its color. Medium size foliage, seems hardy.

PENNY CANDY, Min. (Saville '82). No reports.

PINK CASCADE, Cl. Min. (Moore '81). No reports.

PINK PETTICOAT, Min. (Strawn '79). (Neue Revue x Sheri-Anne). Creamy white/edged coral pink (pb), 30-35 petals. E. Freeman (2 pls. 4 yrs. 2', Ont.): Double bloom, high centered bud opens nicely, excellent substance. For the place that needs a tall wide mini, this is the one - perfect against an ever-green background. Excellent foliage, no disease, hardiness is excellent too. A. Leskiw (1 pl. 2 yrs. 32", Sask.): 1-1½" double bloom, high centered form, excellent substance, numerous blooms all summer, in beautiful multiple sprays. One of the best for show, fragrance and performance. Most miniatures preserve beautifully in silica gel. Upright plant - grew enormous - better than cuttings taken. Attractive ample foliage, no disease, hardiness excellent with winter protection. B. Porter (1 pl. 2 yrs. 13", Sask.): Exhibition form, good substance, flowers borne singly for me. My plant was kept under lights in winter, replanted in spring - not much bloom first half of season but did very well in fall. Spreading growth habit, dark green foliage, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 24-30", Ont.): 1½" exhibition form blooms, opens fairly fast, good substance, good solid bloomer with fairly rapid repeat, petals drop cleanly, blooms last up to 10 days. Color (white with pink halo) makes it a photographer's delight. Vigorous upright grower, dark green foliage, no disease problems, wintered well but doesn't enjoy frequent moves.

POKER CHIP, Min. (Saville '79) ((Sheri Anne x (Yellow Jewel X Tamango Seedling))). Scarlet orange/gold (rb), 25-30 petals. Mrs. M. Roberts (4 pls. 3 yrs. 10-12", Ont.): HT form, exhibits best at 1/3 open, full open bloom 1¾" diameter, opens rather quickly after ½ open. Heavy bloomer with fast repeat, sweet fragrance, grows well indoors or outdoors, borne singly and in sprays, admired by visitors at any stage. Vigorous compact grower, dark green glossy foliage proportionate to size of bloom, disease resistant, hardiness no problem.

PUPPY LOVE, Min. (Schwartz '78) (Zorina x unnamed seedling). Orange/yellow/pink (ob), 20-25 petals. B. Biddulph (1 pl. 3 yrs. 8", Man.): High centered form, good substance, striking color changes are pleasing, almost continuous bloomer - ten or more blooms all the time, some fragrance. Upright grower, matt green foliage, some blackspot, hardiness is good. M. Humenick (2 pls. 7 yrs. 12", Cal.): Great form, excellent substance, color contrast an eye catcher, can be decorative, holds well when cut - great asset to the arranger. Erect grower, dark green foliage, no disease. Mrs. M. Roberts (2 pls. 2 yrs. 12-14", Ont.): Pointed bud, high centered bloom - ½" diameter in summer, 1" in fall. Borne one to a stem, fairly prolific, fast repeat. Good substance, showy little performer. Size of bloom in fall almost proportionate to size of leaves. Upright compact grower, dark green largish foliage, no disease, hardiness no problem.

RAINBOW'S END, Min. (Saville '84) (Rise 'n Shine x Watercolor). Yellow/flushed red/scarlet edges. (yb). E. Cochran (1 pl. 1 yr. 13-15", Cal.): Fat buds open to large high centered HT type blooms, good substance, hold form for days then becomes too large for a mini. Performed well in all respects first year, floriferous. Thick bushy growth habit, medium green leathery foliage,

no disease. E. Freeman (1 pl. 1 yr. 7", Ont.): Fully double HT type exhibition blooms, good substance, lovely color, a lot of bloom - very pleased with this one. Compact grower, good foliage. G. Magee (1 pl. 1 yr. 20", Ont.): Ovoid HT type bud, good form bloom, yellow at first and as bloom opens edges flush red, good substance, quite double long lasting open blooms - one of the best 1984 introductions. Upright bushy grower, dark green medium size foliage.

RAZZMATAZZ, Min. (Warriner '82) (Zorina x Fire Princess). Orange red (o-r). M. Humenick (2 pls. 3 yrs. 20", Cal.): Formal form in cool weather, opens rapidly in heat, great substance, many sprays and some one per stem. Flower size large in cool weather - in fact, looks best then. Erect growth habit, dark green foliage, no disease.

RED ACE, Min. (Saville '80). No reports.

RED BEAUTY, Min. (Williams '81) (Starburst x Over the Rainbow). Dark red (dr). E. Cochran (2 pls. 2 yrs. 12-14", Cal.): High centered exhibition blooms with petals that reflex holding the form for days - a perfect show rose. Very good substance, not a heavy producer but worth waiting for - most active in spring and fall. Bushy upright growth habit, small dark green glossy foliage, small amount of mildew. G. Magee (3 pls. 2-3 yrs. 30", Ont.): Good exhibition bud, slow opening to fairly double open bloom, good substance - one of the best reds. Doesn't make large heads but enough bloom. Older blooms turn purple and I remove them. Upright bushy growth habit, shiny attractive foliage, some blackspot, hardy.

RED CASCADE, Cl. Min. (Moore '76). No reports.

RED FLUSH, Min. (Schwartz '78). (Zorina x mini seedling). Light to medium red (mr), 50-55 petals. E. Freeman (3 pls. 4 yrs. 8", Ont.): Best garden mini for a show of bloom - good form and substance, covered with bloom from May to frost - nothing beats it. Grows very wide, some blackspot, hardiness is excellent.

RED TAG, Min. (Williams '78). No reports.

RISE 'N SHINE, Min. (Moore '77) (Little Darling x Yellow Magic). Rich medium yellow (my), 35-40 petals. B. Biddulph (1 pl. 2 yrs. 8", Man.): Cupped exhibition form, good substance, small bloom, good repeater and many blooms at one time, color fades, some fragrance. A mini HT - for exhibition I find most minis must be picked ¼ open - this one is no exception. Upright growth habit, dark stems - nice contrast, blackspots, good for hardiness. E.N. Grant (1 pl. 3 yrs. 15", B.C.): Excellent form, good substance, ample supply of HT type blooms, color holds well - near perfect little gem. My plant has been for 2 seasons in a 6" pot sunk in the ground and it still thrives - allows taking it to the show for the 'rose in a container' class. Compact grower, OK foliage, no disease.

ROSE HILLS RED, Min. (Moore '78) (R. Wichuriana x Floradora x Westmount). Dark red (dr), 28-30 petals. B. Biddulph (1 pl. 2 yrs. 10", Man.): Nice pointed buds, bloom opens wide to 1½" diameter, beautiful dark red color attracts attention, repeats very well - a very rewarding little plant. Bushy growth habit, attractive deep red leaf stems, glossy foliage, no disease, good for hardiness.

ROSE WINDOW, Min. (Williams '78) (Seedling x Over the Rainbow). Orange/yellow/red (ob), 15-20 petals. G. Magee (2 pls. 2 & 3 yrs. 32", Ont.): Buds not best HT form but good, open bloom attractive until fading, with poor center, good substance - one of the best for garden display although blooms don't cover the bush as some do. Upright bushy plant, medium size dark green foliage.

SASSY LASSIE, Min. (Williams '75). No reports.

SEPTEMBER DAYS, Micro Min. (Saville '76). No reports.

SIERRA SUNRISE, Min. (Moore '80). No reports.

SINGLE BLISS, Min. (Saville '80). No reports.

SMALL WORLD, Min. (Moore '75) (Little Chief x Fire Princess). Rich orange red (o-r), 20-22 petals. B. Biddulph (1 pl. 2 yrs. 6", Man.): Flat bloom, good substance, holds well and repeats well, eye catching color, bloom 1½-2" diameter. Truly a mini - the size I like my minis to be. Compact bush, dark glossy leathery foliage, no disease, hardiness good with protection.

SNOW BRIDE, Min. (Jolly '82). White (w). G. Magee (3 pls. 1 & 2 yrs. 20", Ont.): Exhibition bud, good form bloom, borne either singly or in large clusters. Not too big - my favourite of 1983 introductions that I have grown. Award of Excellence 1983. Bushy growth habit, medium green medium size foliage. B. Porter (1 pl. 1 yr. 13", Sask.): Exhibition form, good substance, double bloom in small clusters or singly. An attractive variety but not as floriferous as I would like. Open growth habit, large dark green foliage, no disease.

SNOW CARPET, Min. (McGredy '80). No reports.

SNOW MAGIC, Min. (Moore '76). No reports.

SNOW WONDER, Min. (Lyon '78). White (w), 45-50 petals. Mrs. M. Roberts (2 pls. 4 yrs. 8-10" inside, 6" outside, Ont.): Pointed bud, 1" fully open bloom, loose form, fair substance, very prolific with fast repeat outside, longer rest period indoors. Worth trying for fragrance alone. One plant in bloom indoors fills the air with fragrance, does well on window ledge or under artificial light. Needs partial shade outside. Compact spreading grower, tiny medium green fern-like foliage, mildew, blackspot, rust and sunburn outside, needs no special winter protection.

SPICE DROP, Micro-Min. (Saville '81) (Sheri Anne x Glenfiddich) x (unnamed Moss Seedling x (Sarabande x Little Chief). Light salmon pink (lp), 35 petals. C. Decker (1 pl. 2 yrs. 8-10", Alaska): Form seems to be high though exhibition, excellent substance, nice bright color, lots of bloom and long lasting on bush, seems to take the cool rain well. ¾" bloom, slight fading. Fairly compact grower, nice size, healthy foliage complementing blooms. Medium for hardiness. R.F. Johnson (1 pl. 2 yrs. 12", Que.): Exhibition form, good substance, 1½" bloom, always in bloom. A very good micro mini - wish there were more highly rated micro minis. Low bushy grower, dark green plentiful foliage, no disease, hardiness OK with protection. A Leskiw (1 pl. 2 yrs. 6", Sask.): 1¼" double bloom, high

centered form, excellent substance but not very many blooms. This micro mini is a slow grower and would be excellent for a dish garden - will take indoors and keep it dormant until February then hopefully incorporate it in a dish garden landscape next year. A bit of chlorosis in foliage, some mildew. Hardiness excellent with winter protection.

SPRING MELODY, Min. (Williams '83) (Little Darling x Over the Rainbow). Light salmon orange. (ob). G. Magee (1 pl. 1 yr. 16", Ont.): Bud not too well shaped, open bloom good, extremely double, good substance - a garden variety since bud is not exhibition to date. Attractive on a small plant, but time will tell. Medium size foliage.

STAR TWINKLE, Min. (Moore '78). No reports.

STRANGE MUSIC, Min. (Moore '80). No reports.

STRAWBERRY SWIRL, Min. (Moore '78). No reports.

SUMMER BUTTER, Min. (Saville '79). No reports.

SUNDUST, Min. (Moore '77). No reports.

SUNNYDEW, Min. (Schwartz '78). No reports.

SUN PRINCESS, Min. (Laver '84) (Dwarf King x Starina) x Lemon Delight). Light pink (1p). M.A. Cadsby (1 pl. 1 yr. 6", Ont.): Beautiful shade of pink, HT type form, good substance - a real darling! Upright grower, ample foliage, no disease.

SUNSPRAY, Min. (Christensen '80). No reports.

SWEET MANDARIN, Min. (Schwartz). No reports.

TIGER BUTTER, Min. (Strawn '81) (Sunblest x Over the Rainbow). Yellow (dy). G. Magee (1 pl. 2 yrs. 10", Ont.): Fairly double bloom from a bud of fair HT form. Color for me is medium to deep yellow, fades but more slowly than most yellow roses. Doesn't grow or bloom much to date. Dwarf slow growing plant, fairly small, medium green foliage, fairly hardy.

TINY TEARS, Min. (Bennett '79) (Pink Ribbon x Pink Ribbon). Medium pink (mp), 5 petals. M. Humenick (2 pls. 2 yrs. 7", Cal.): A 5 petalled single mini, decorative form good substance - lovely. Can be a mass of bloom. Dense growth habit, dark green foliage, no disease.

TOY BALLOON, Min. (Moore '79) (Fairly Moss x Fire Princess). Dark red (dr) 45-50 petals. Mrs. M. Roberts (3 pls. 4 yrs. 10-12", Ont.): Mossy 1" pom pom, excellent substance, square little reddish mossy buds open to high centered blooms, 3-5 in sprays, free flowering all season. I prefer the HT shape but this one is a pet. Color and texture are phenomenal, shows off in the garden all season and would be interesting for design work. Bushy spreading growth habit, abundant semi-glossy reddish foliage, quite disease resistant, hardiness no problem.

TUTU, Min. (Rovinski & Meredith '78). No reports.

UPSTART, Min. (Warriner '82). No reports.

VALERIE JEANNE, Min. (Saville '80). Bright magenta pink (dp). E. Freeman (1 pl. 1 yr. 5", Ont.): Exhibition form, excellent substance, beautiful deep fuschia pink color, always in bloom - really like it. G. Magee (1 pl. 1 yr. 16", Ont.): Bud could be exhibition, very double open bloom, good substance - I like the color and garden effect of this variety. Award of Excellence 1983. No disease.

WHY NOT, Min. (Moore '82). Red blend (rb), 5 petals. M. Humenick (1 pl. 1 yr. 6", Cal.): Decorative form, average substance, very tiny flowers - a novelty - very red petals and a yellow eye. Can tell more in a year after it has grown some. Short growing habit, tiny medium green foliage, no disease.

YOUNG COLE, Min. (McGredy '78) (Anytime x Trumpeter). Brilliant vermilion (o-r), 40 petals. M. Humenick (1 pl. 4 yrs. 15", Cal.): Decorative form, wavy petals and very few of them, great substance - gets its form and size from one of its parents. Anytime, and its color from the other, Trumpeter. Rangy growth habit, dark green foliage, no disease.

YELLOW DOLL, Cl. Min. (Kirk '76). No reports.

ZWERGENFEE, Min. (Kordes '79). No reports.

ZINGER, Min. (Schwartz '78). No reports.

ANTICIPATION

A rose bud pearled with morning dew
Prefigures a bloom of perfection rare,
With fragrance sweet and of vivid hue
To delight one's soul and perfume the air.

The oriole's song in the early morn
Awakens the heart to a beautiful day
Of sunshine and joy and happiness reborn,
To lighten one's spirit and brighten the way.

A note from a dear one on a lengthy vacation,
Announcing good health and a happy return,
Brings bliss to the heart and cheerful elation,
A longing to meet — a new joy to learn.

Rose buds, bird songs, and letters, all three
Are harbingers of pleasure, I long to see thee.

From the book, "Petals from Blown Roses"
by George J. Patterson

